# The Future Security Environment: *Challenges to Maritime Superiority*

- The case for being there
- Character of future war
- Challenges for the futu

Navy

VADM A. K. Cebrowski
8 February 2001

# Enduring Navy Tasks

**Mastery of the seas**

**Project and protect long lines of communications**

**Land and support armies**

**Rescue armies and governments**

**Conduct blockades and enforce sanctions**

**"Gunboat diplomacy"**

## Navy's Core Products

***"The best Ambassador is a man-o-war"***

# Navy Rule Set

**Cede no maritime areas**

- *Grant no sanctuaries*
- *The littoral must not be a barrier*

**Respond with speed**

- *Combined Arms*
- *Sea - based*
- *Self - deployed*
- *Interoperable*

**Serve the full range of nationa**

- *A full service Navy*

# Competitive Space

**Operate forward vice strategic deployment**

- *Speed of response*
- *Alter initial conditions*
- *Dominate the front end*
- *Tacit knowledge building*

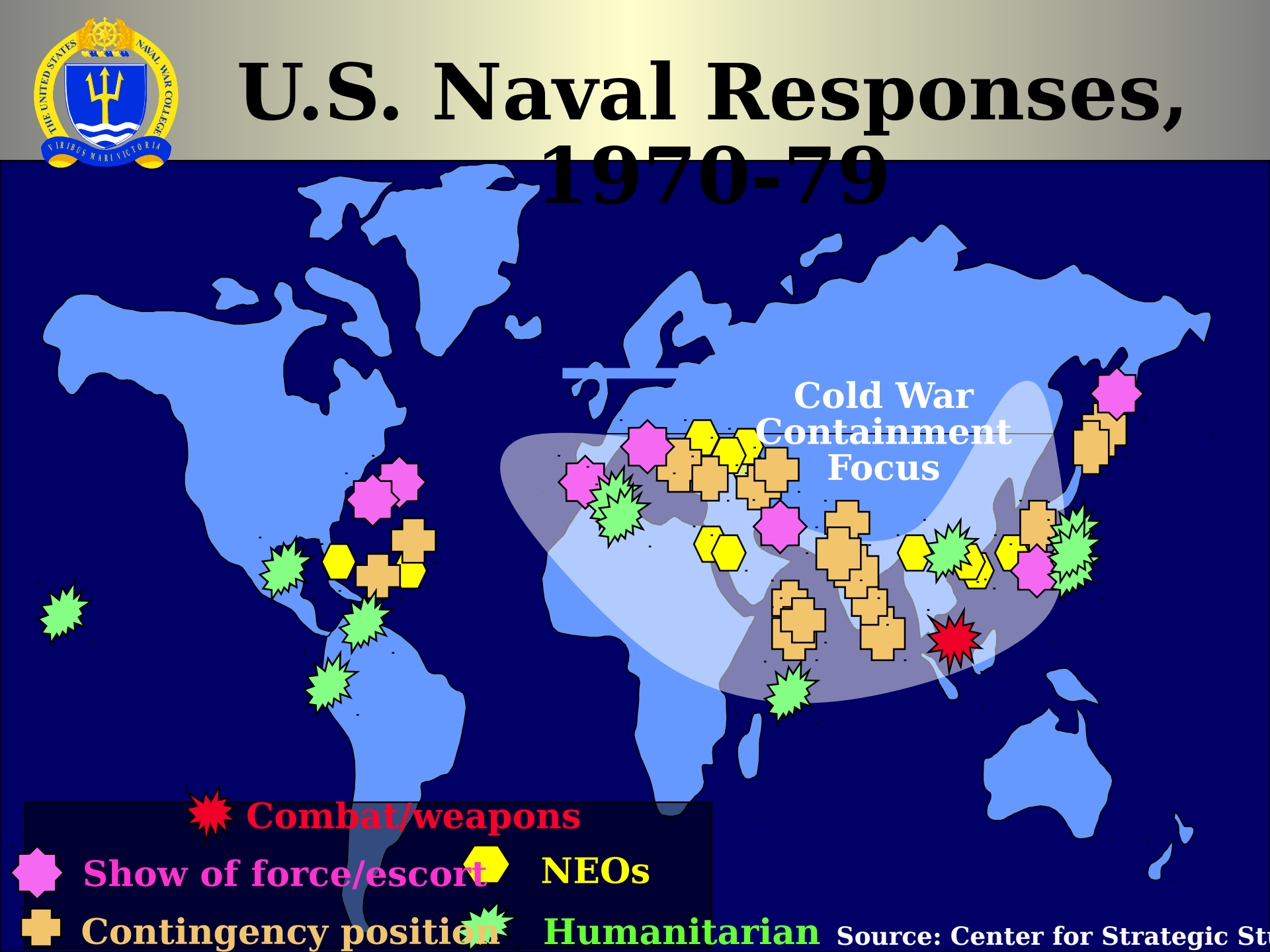
**Full spectrum combat vice recon / strike**

- *A maneuver force*
- *Output vice input measures*
- *Deter, compel, reassure*
- *Strong “low end” capabilities*

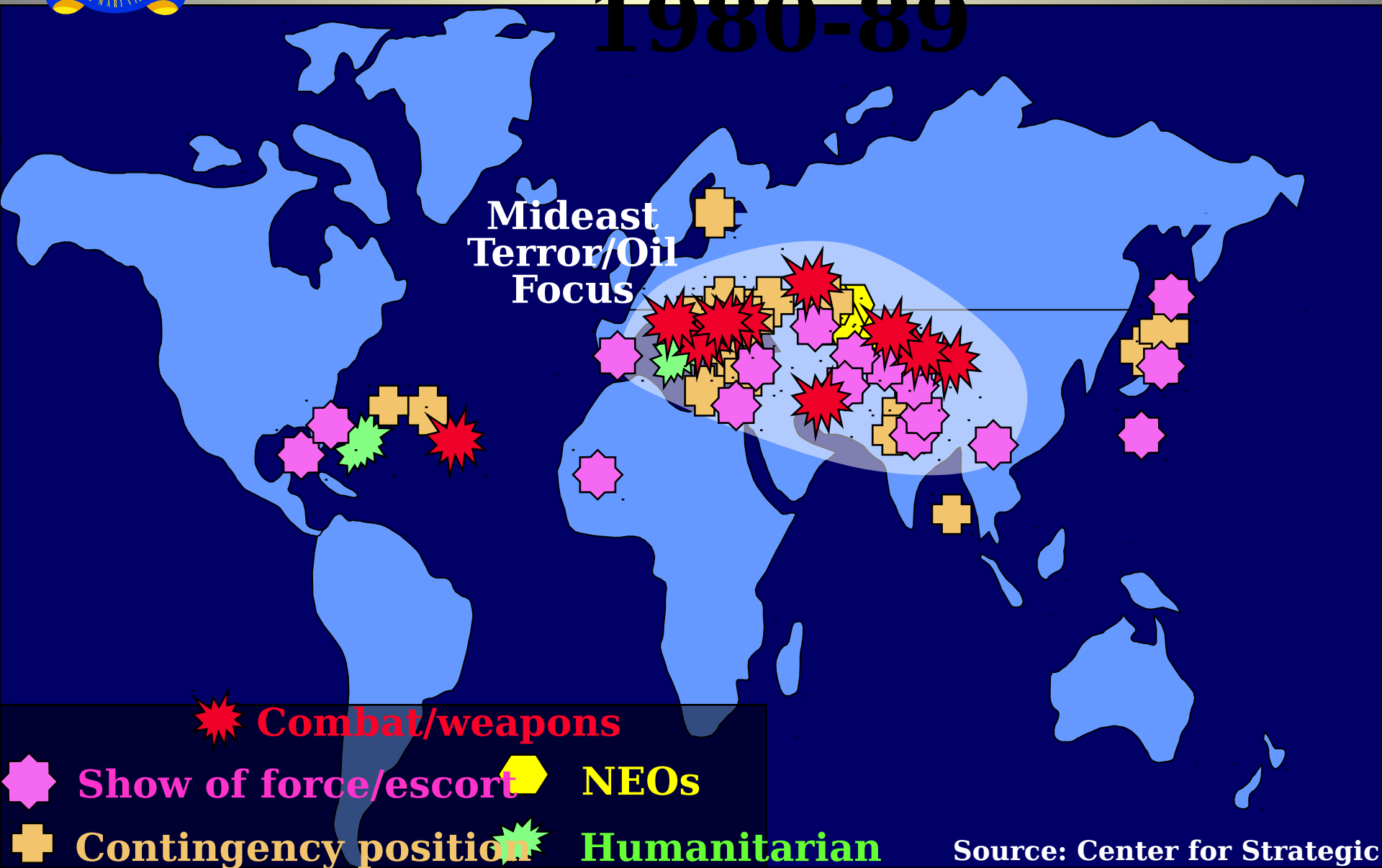
**Own the littoral**

- *Assured access*
- *Expeditionary tiered sensors*
- *Influence the nodes of global networks*

# U.S. Naval Responses, 1970-79

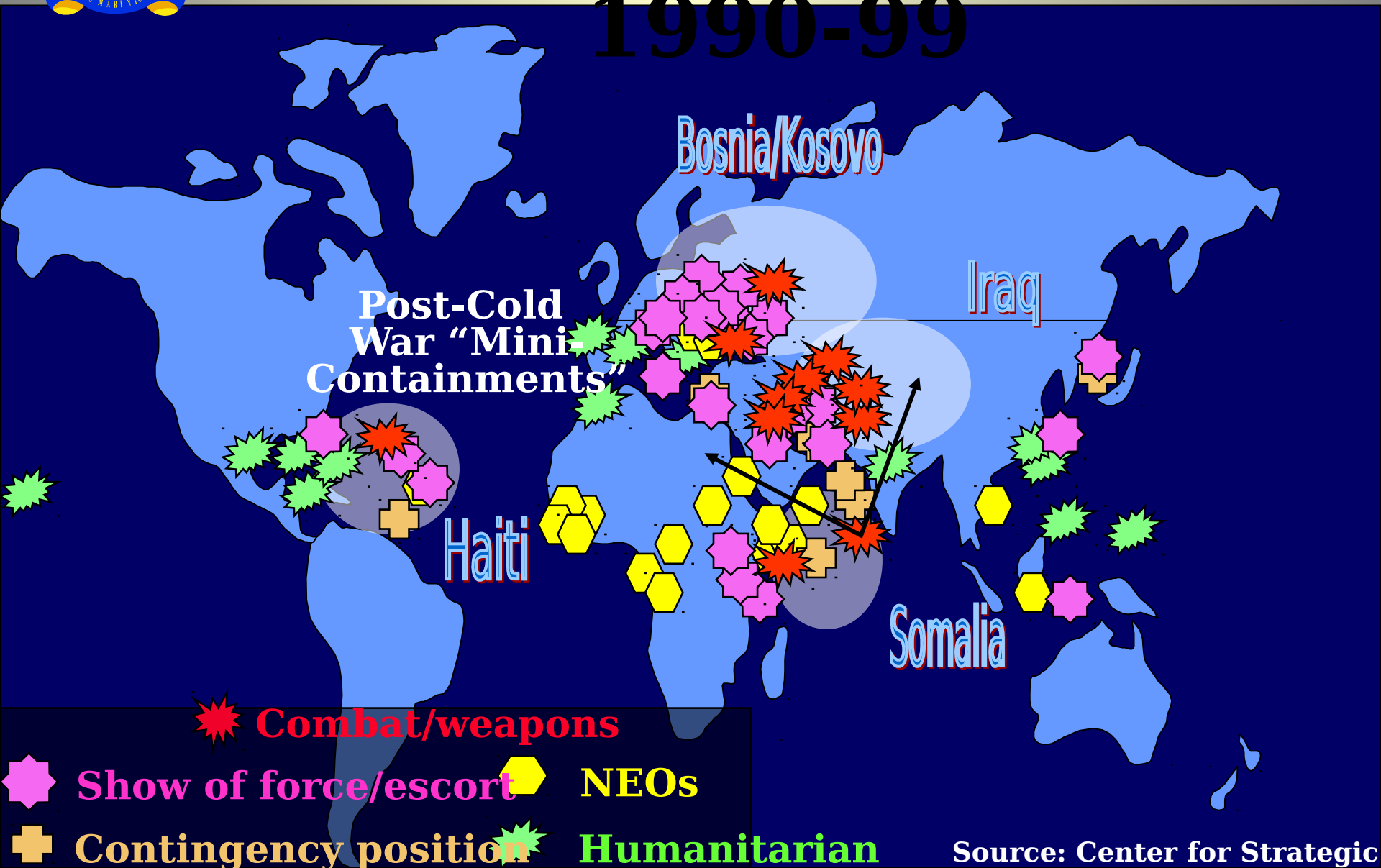


# U.S. Naval Responses, 1980-89




Source: Center for Strategic

# U.S. Naval Responses, 1990-99

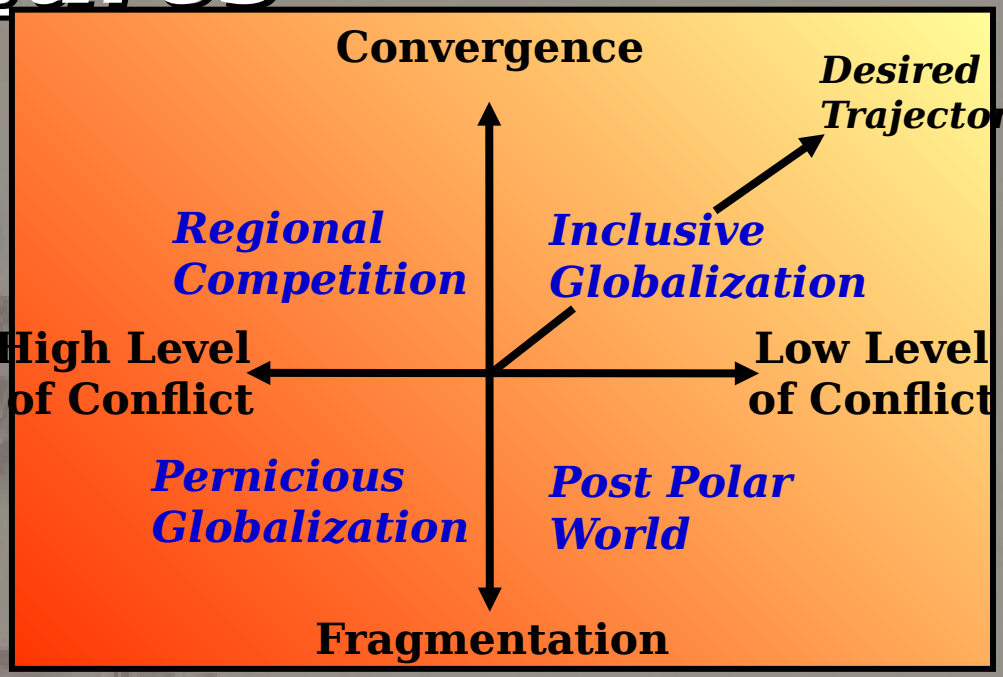



Source: Center for Strategic

# National Security Environment

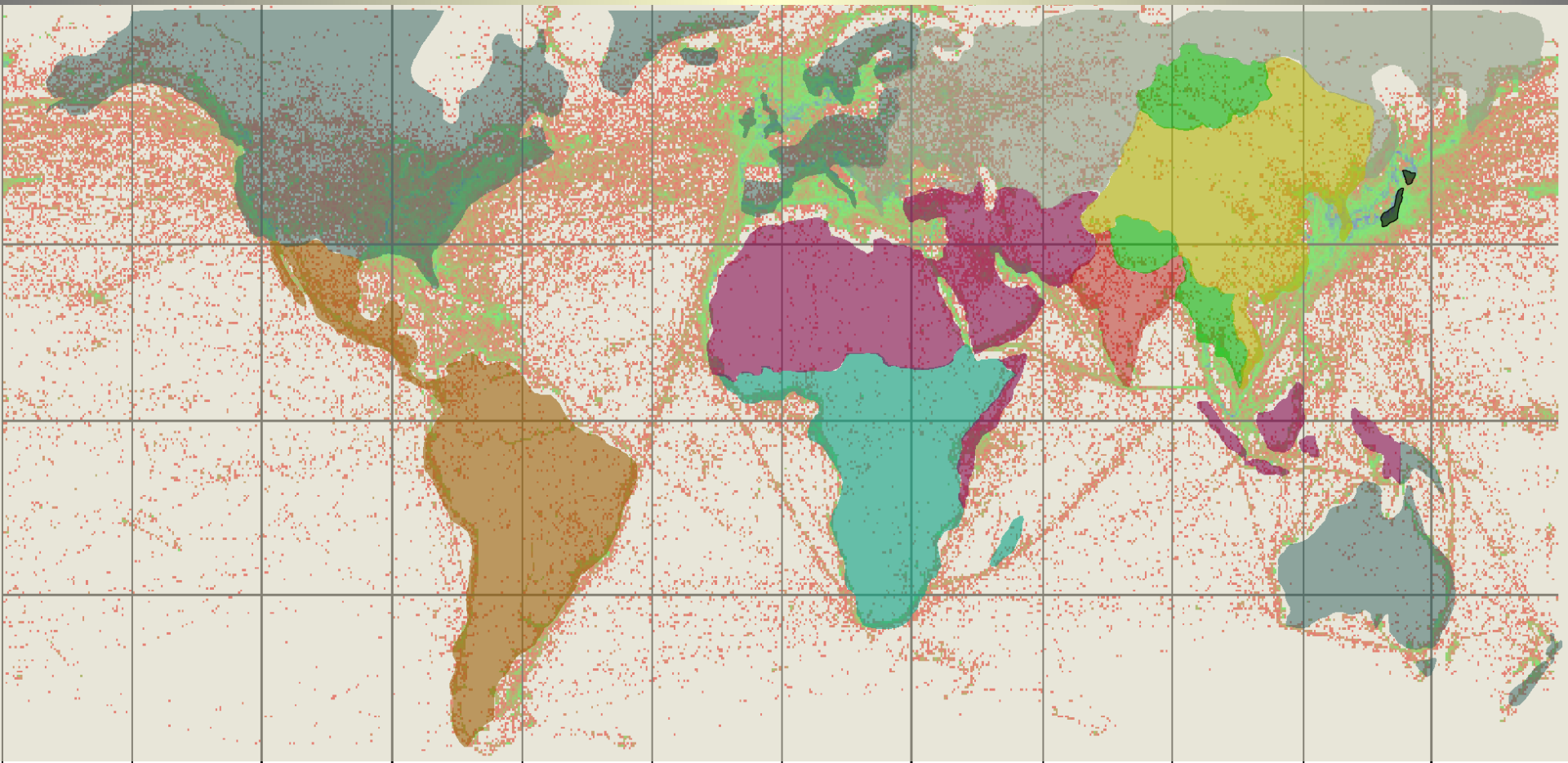
## *Alternative Futures*

- **The U.S. is a *status quo power* in a rapidly changing age…. where we cause the change.**
- ***Economic globalization*** **is increasing…. as political entities are**




***Forward Engagement = Change + Stability***

# Convergence of Trends and Constants



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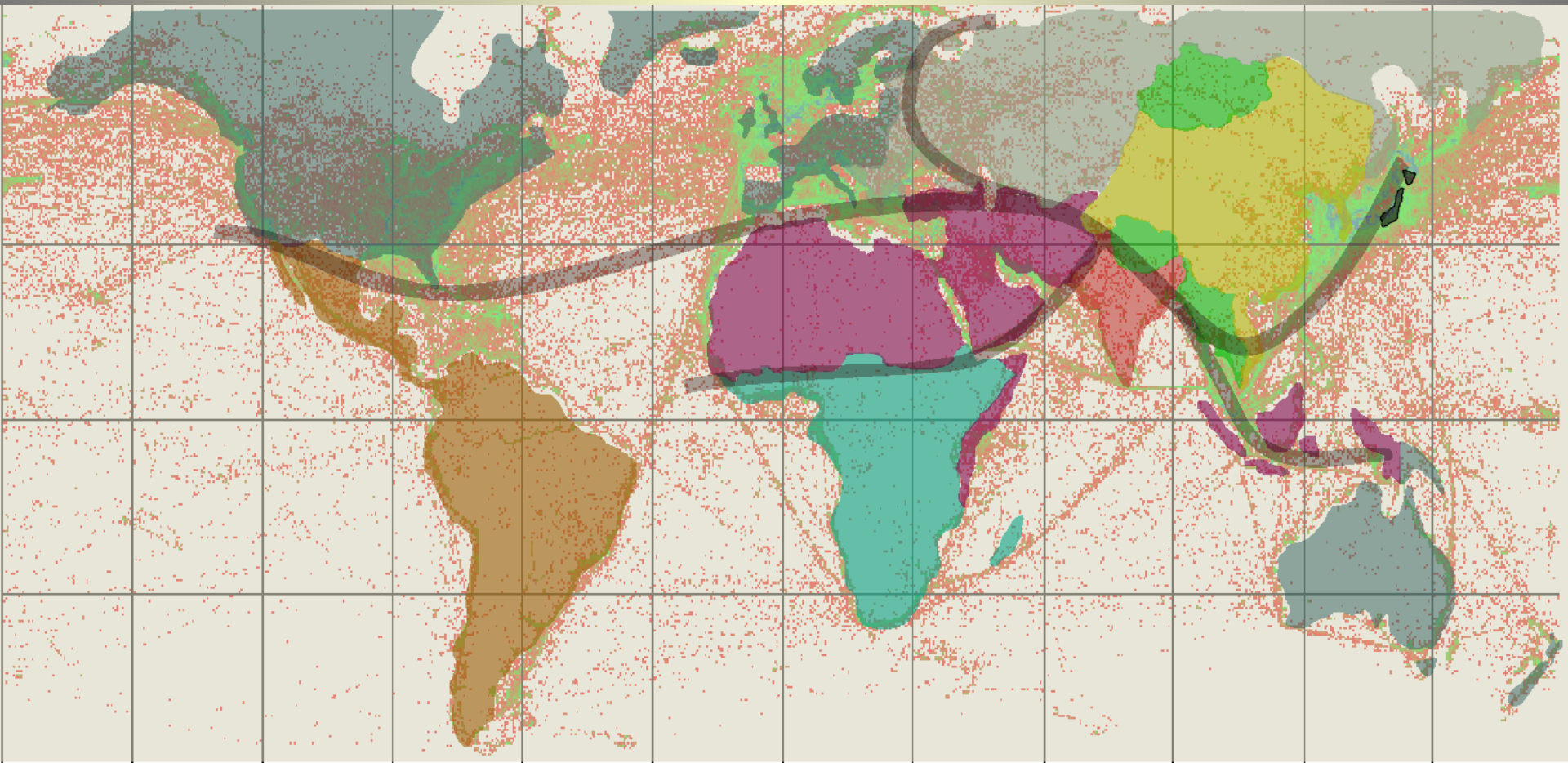

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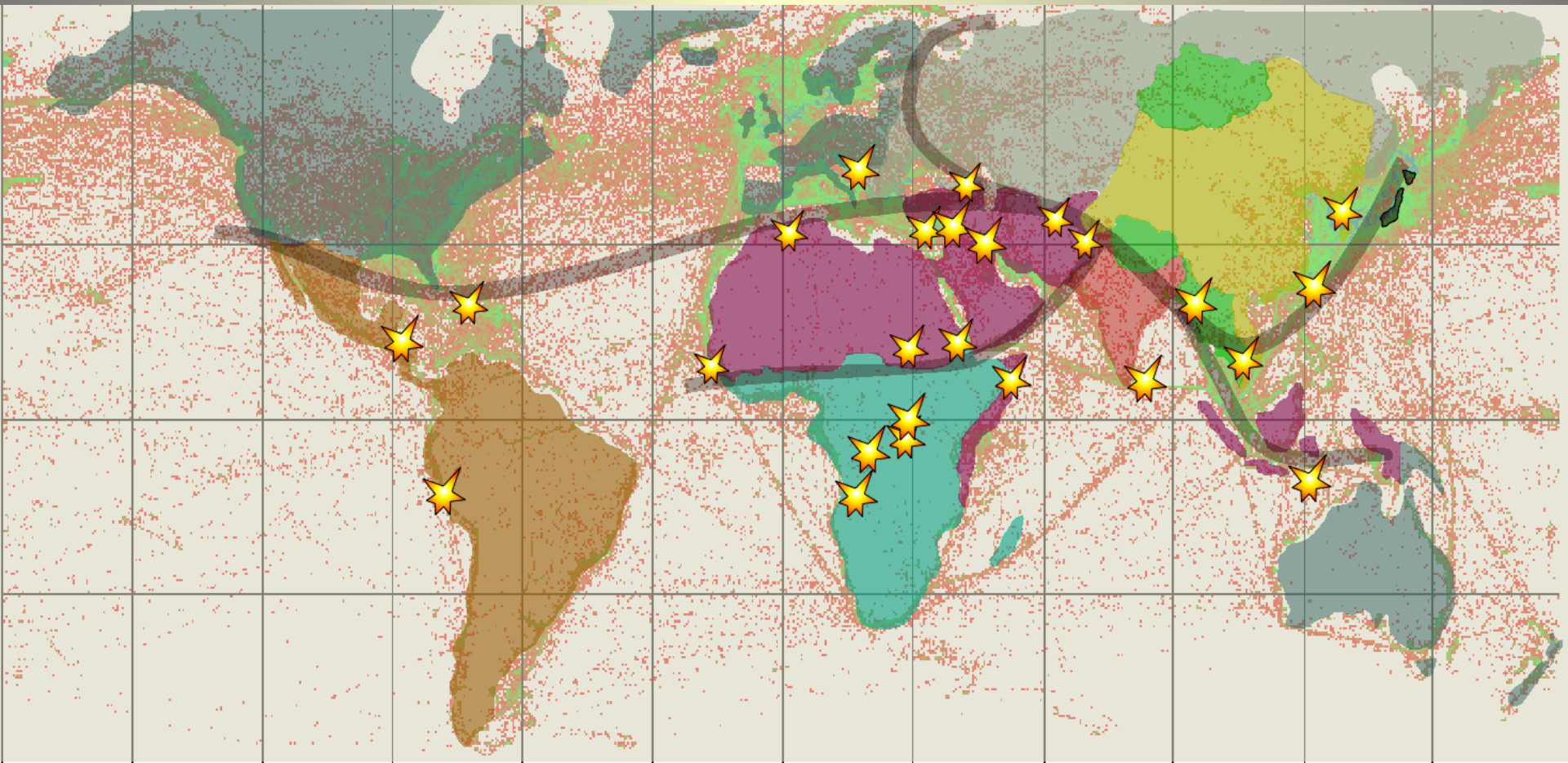

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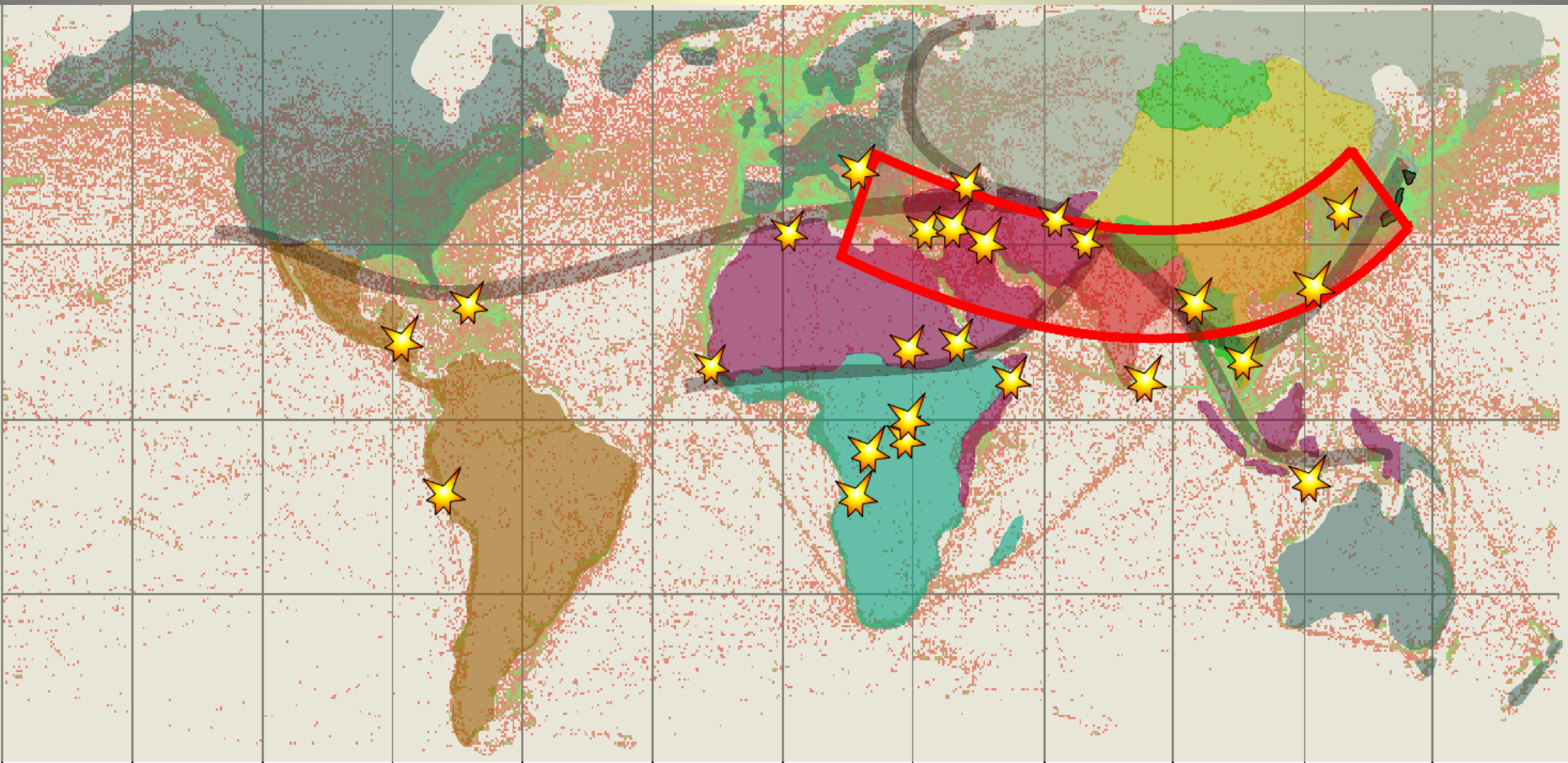

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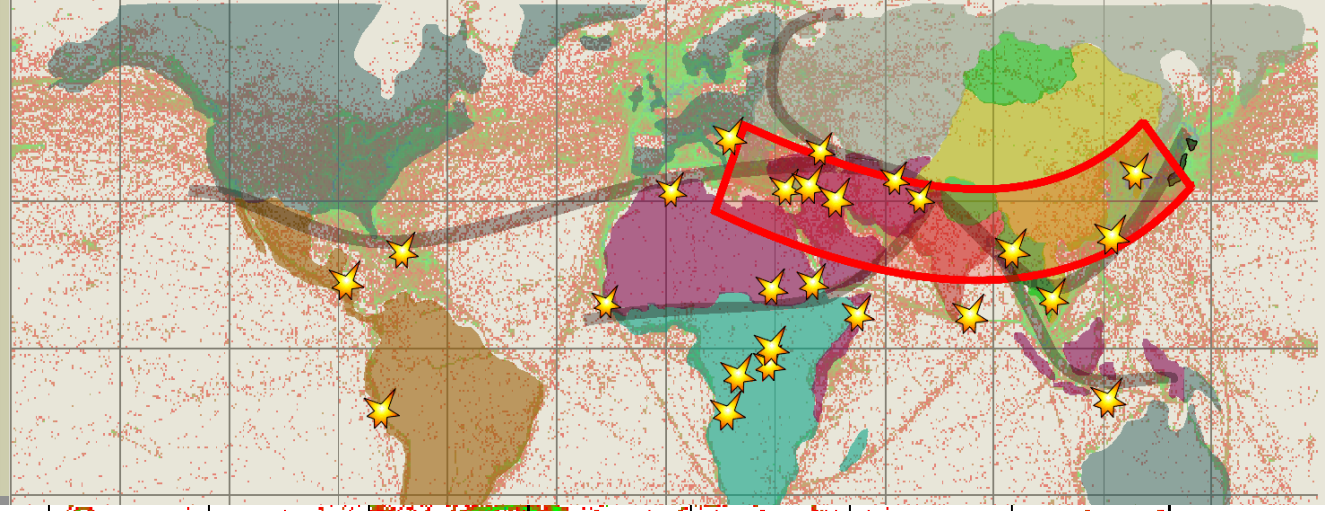

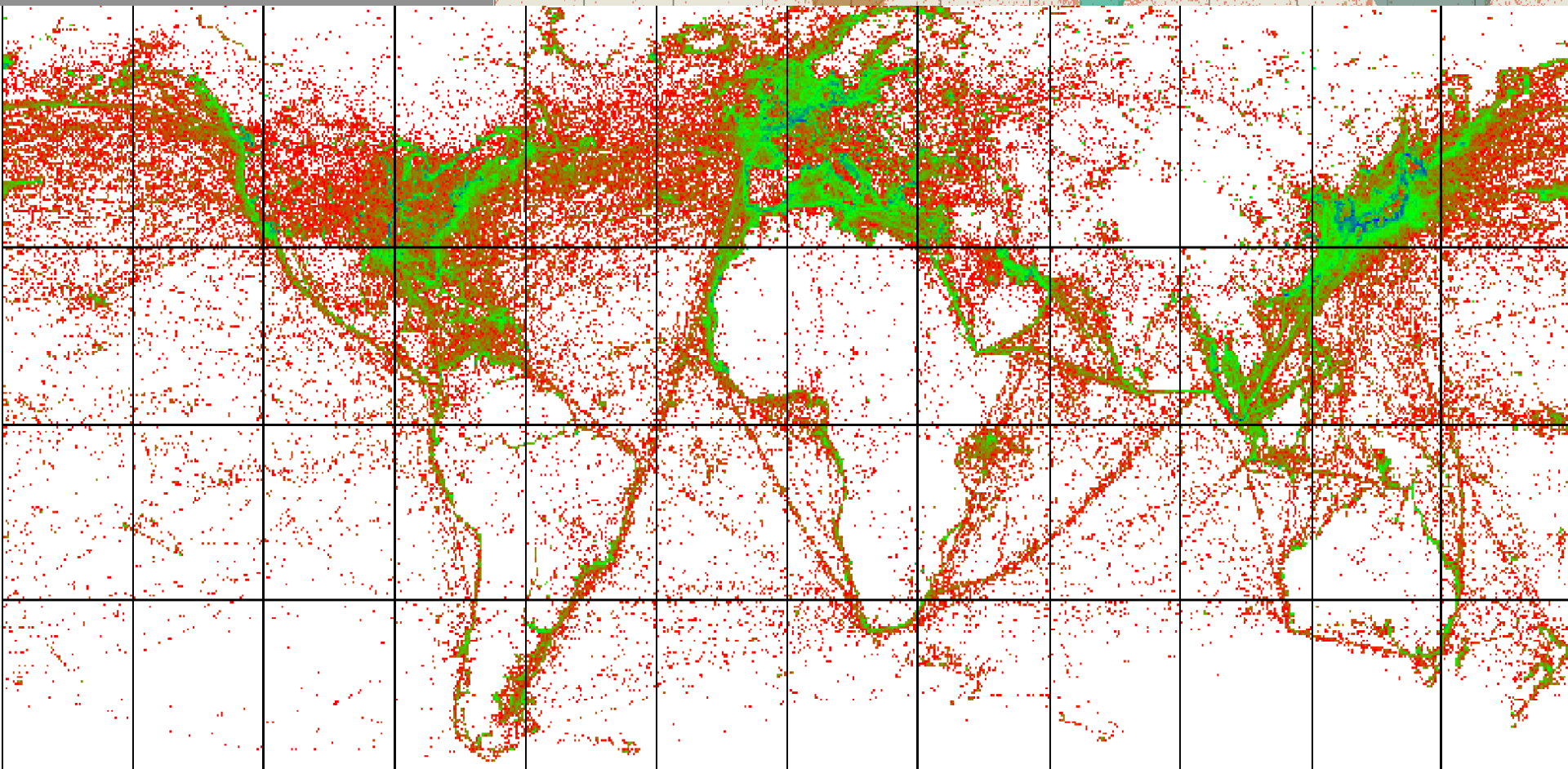

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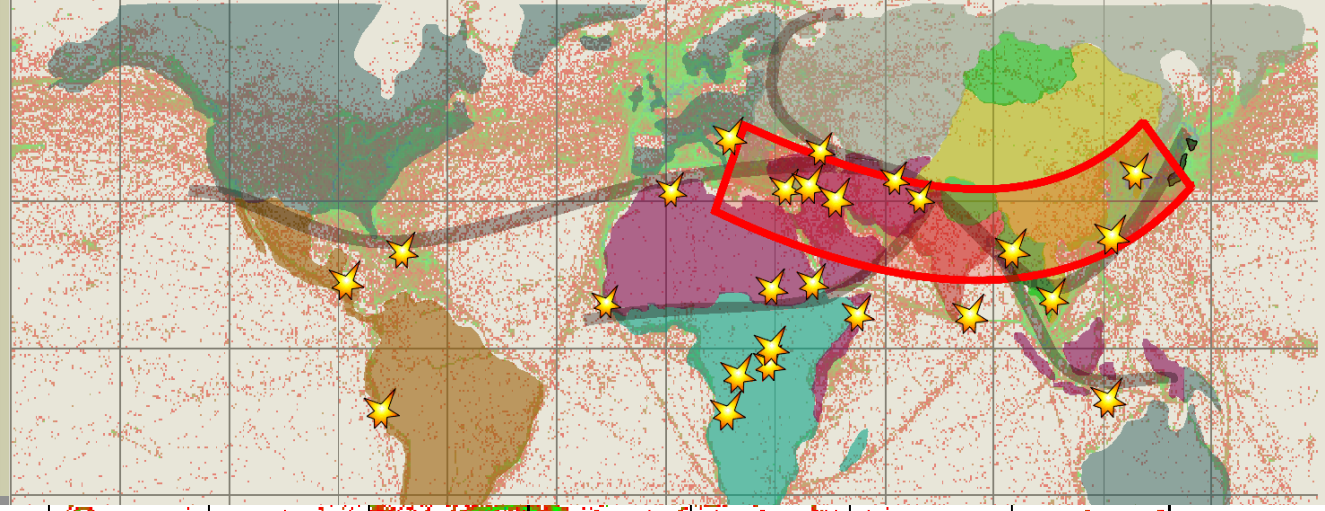

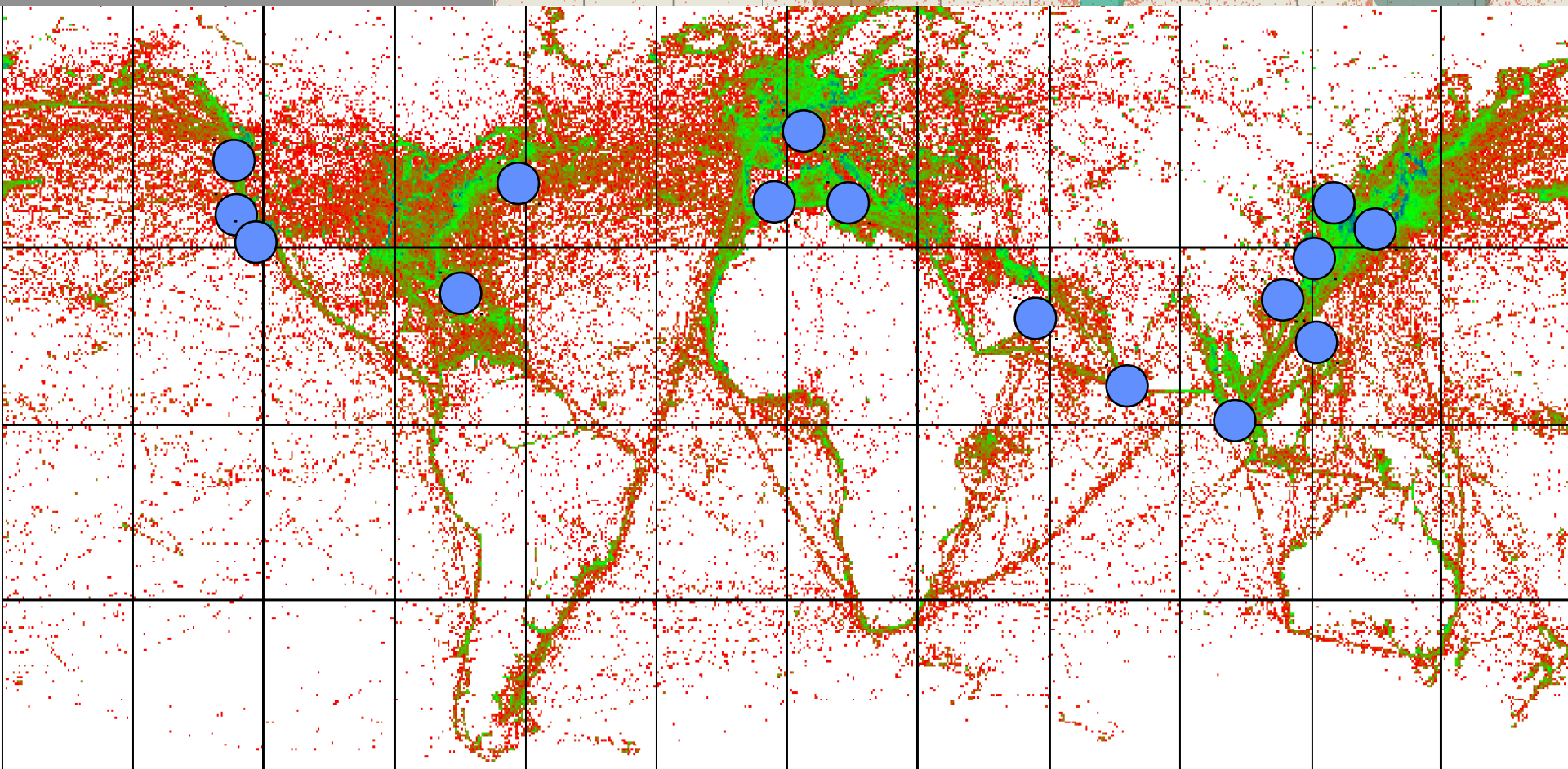

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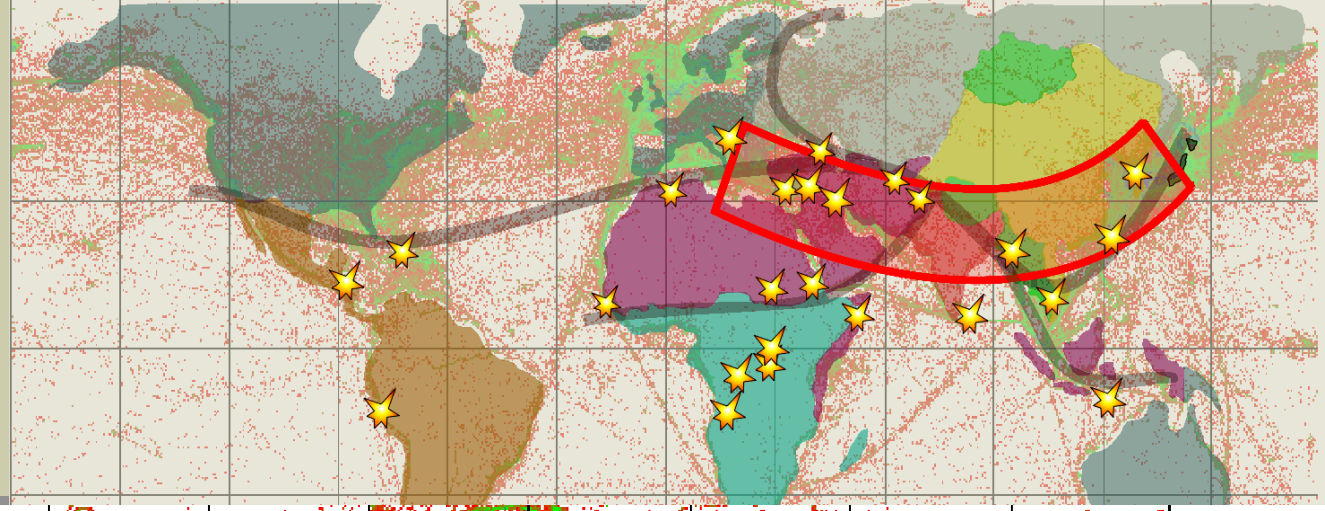

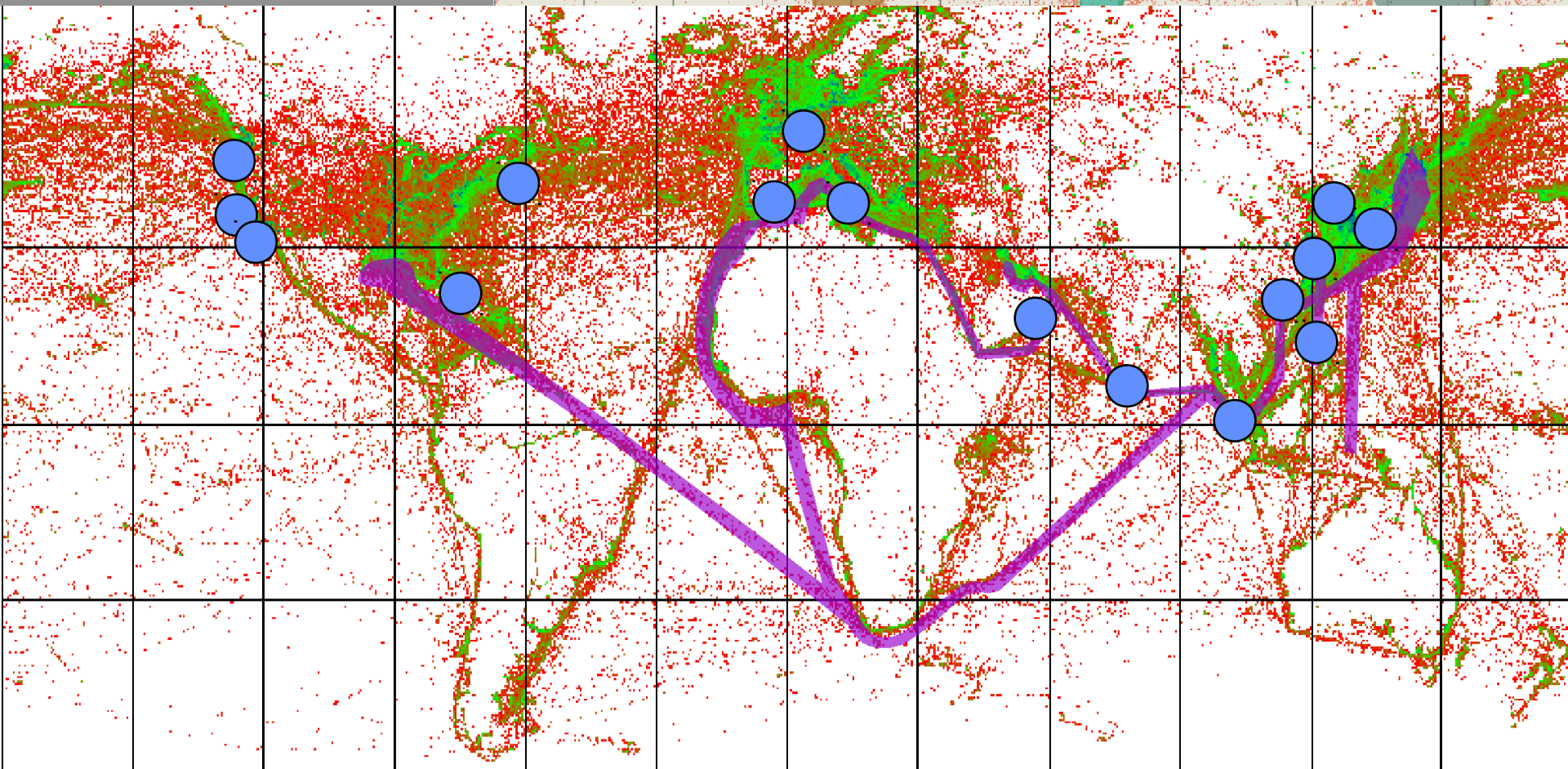

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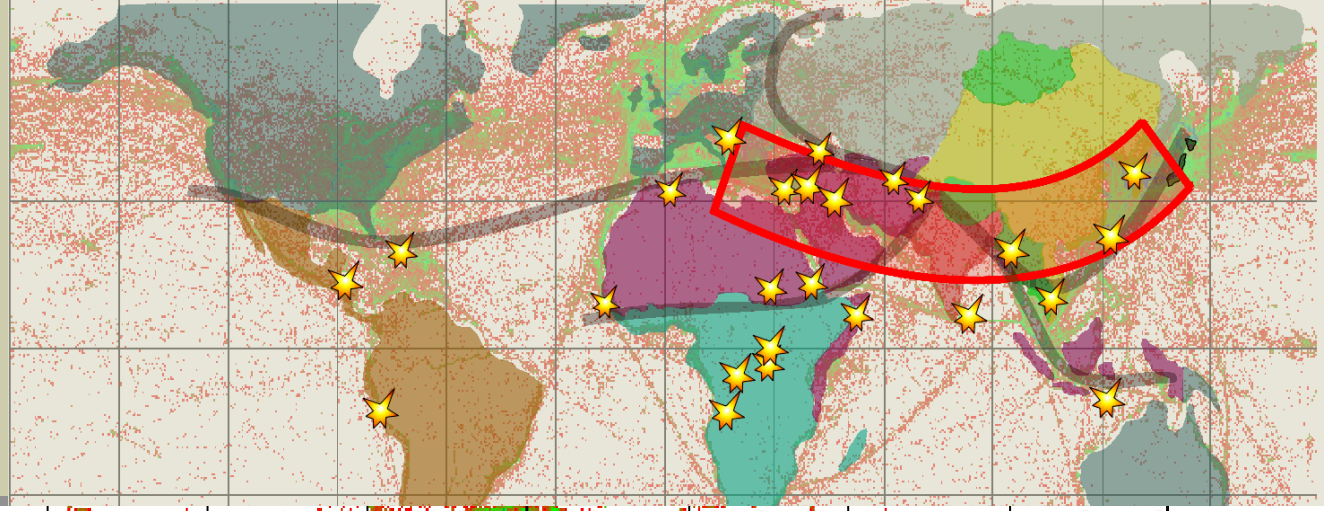
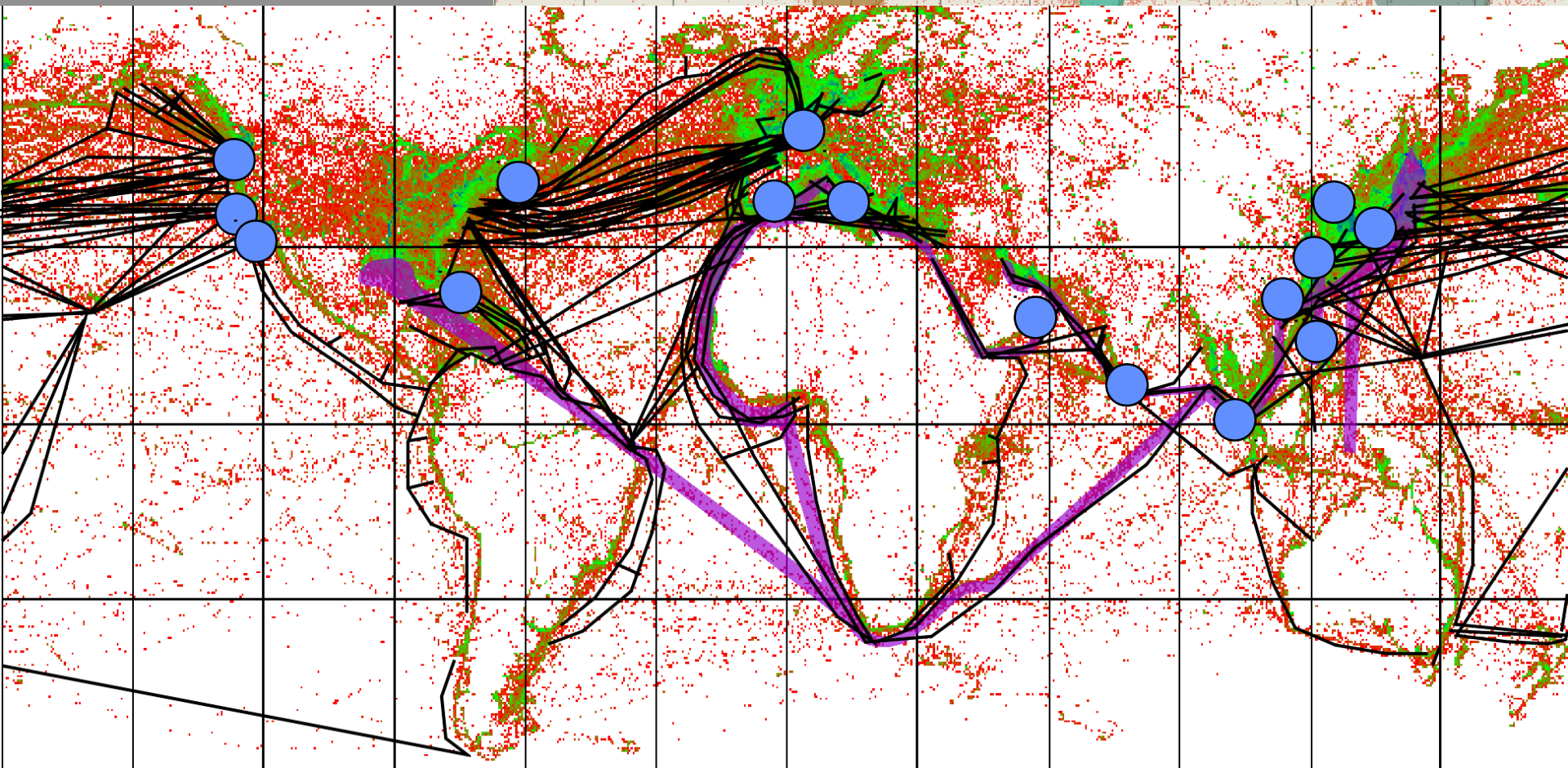
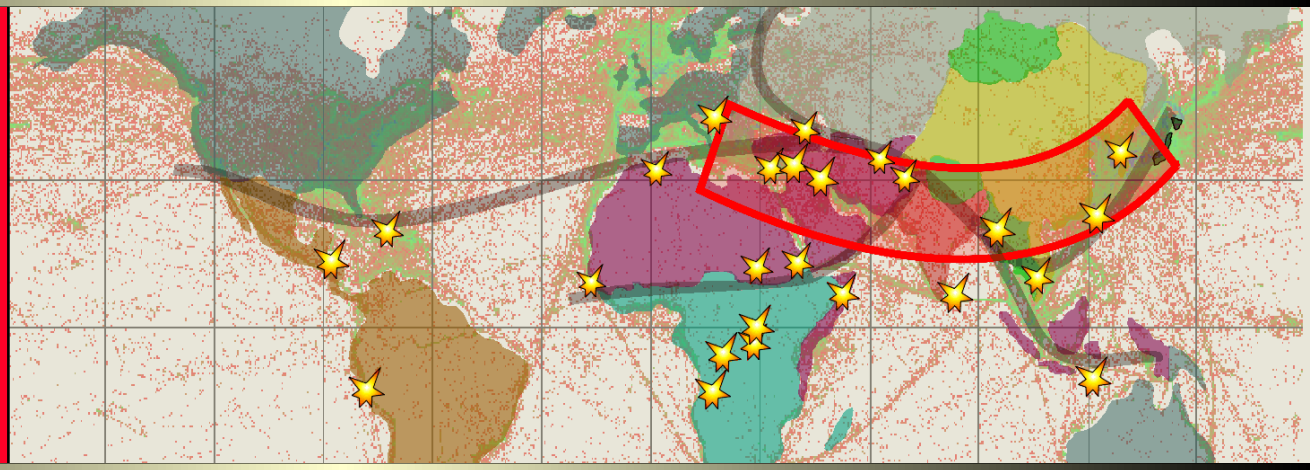
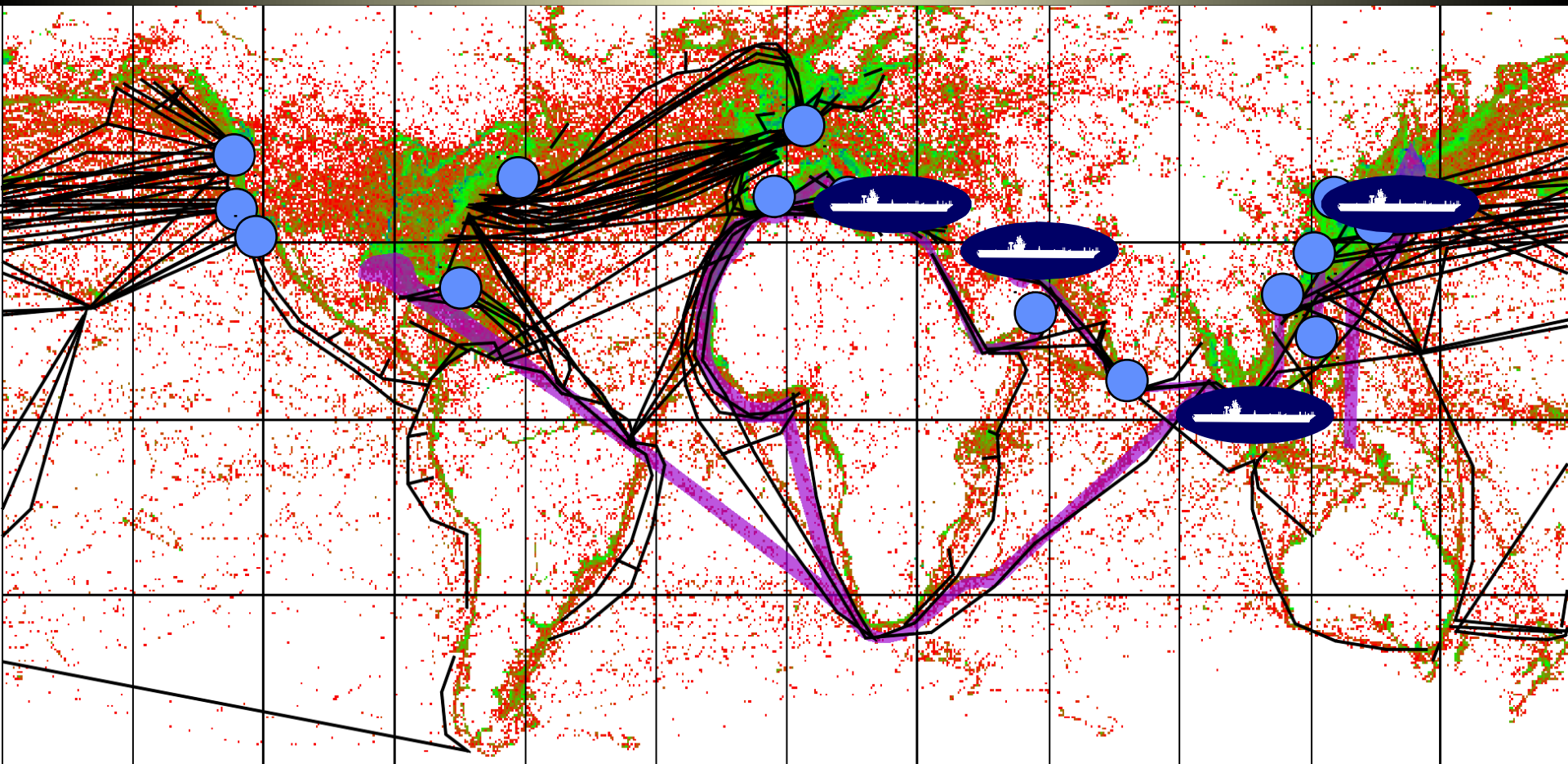




# Size
# Shape
# Operate
# Change

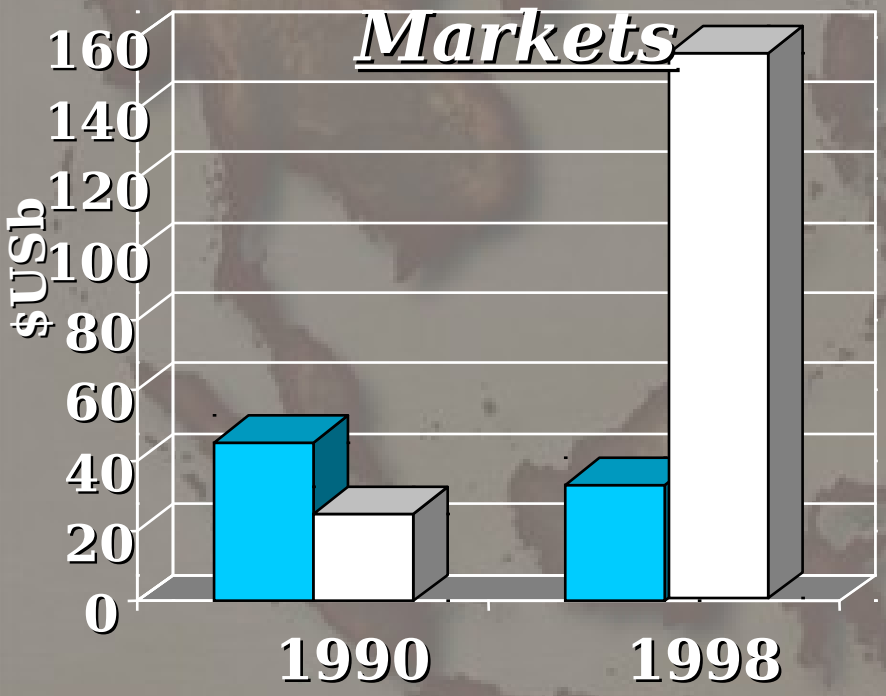




# National Security Environment

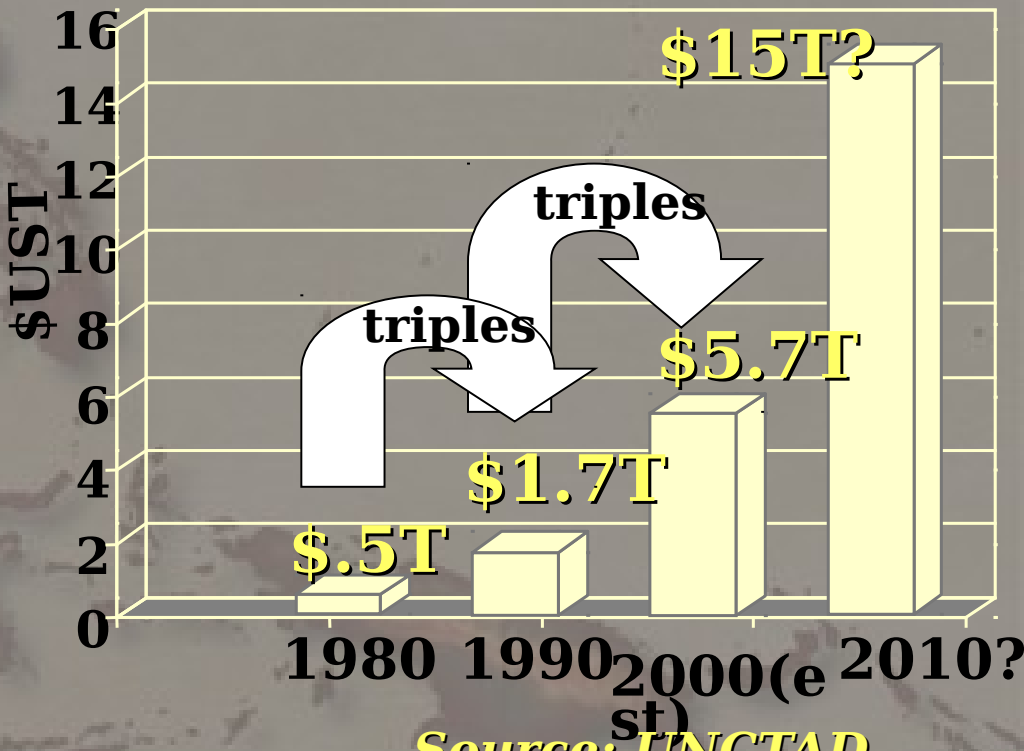
## "Aid vs. Paid"

### Gross Capital Flow to all Emerging Markets




Source: IMF

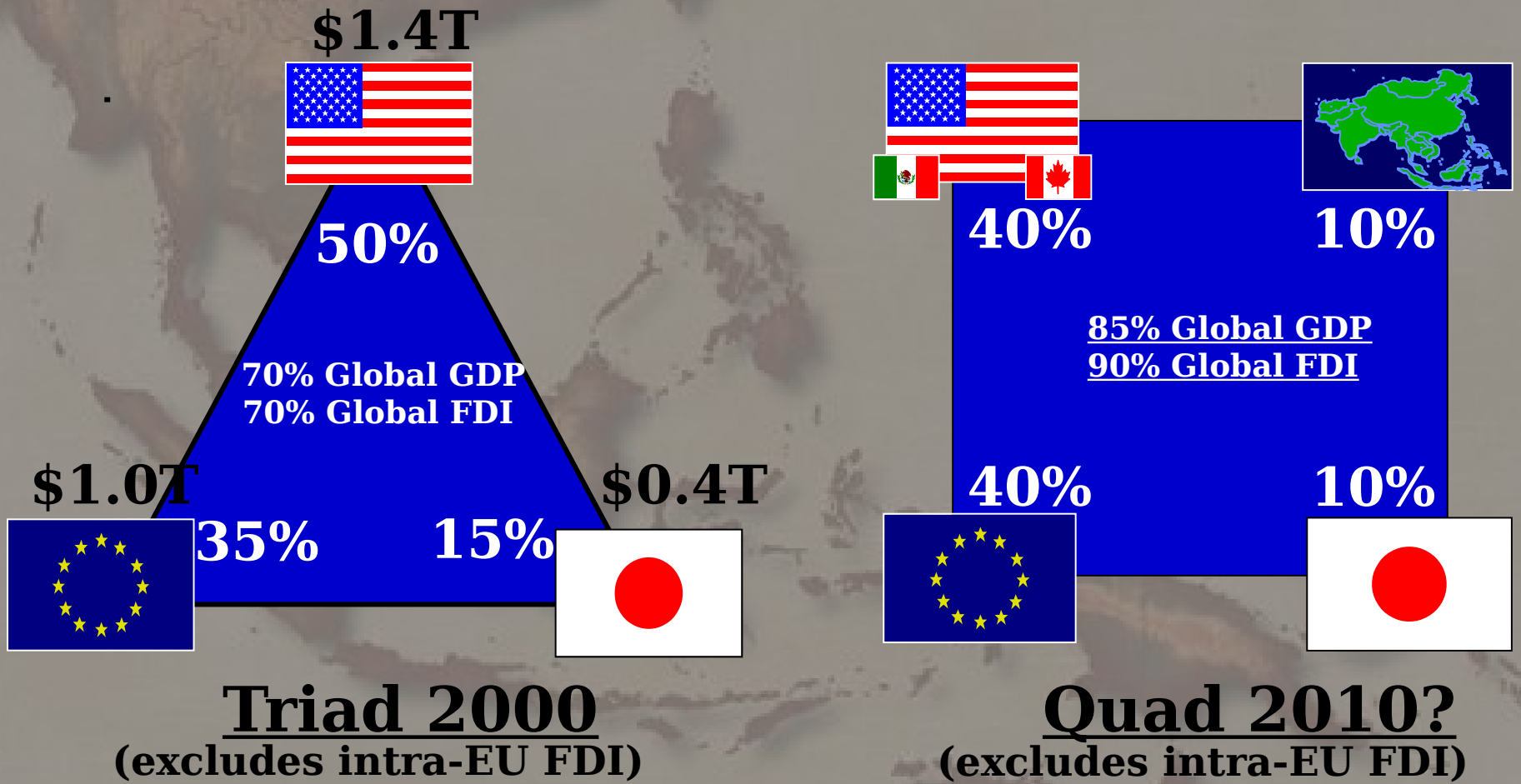
### Global Growth in FDI Stock




Source: UNCTAD

# Foreign Direct Investment

***Containment → Inclusion***




**Triad 2000**
**(excludes intra-EU FDI)**

**Quad 2010?**
**(excludes intra-EU FDI)**

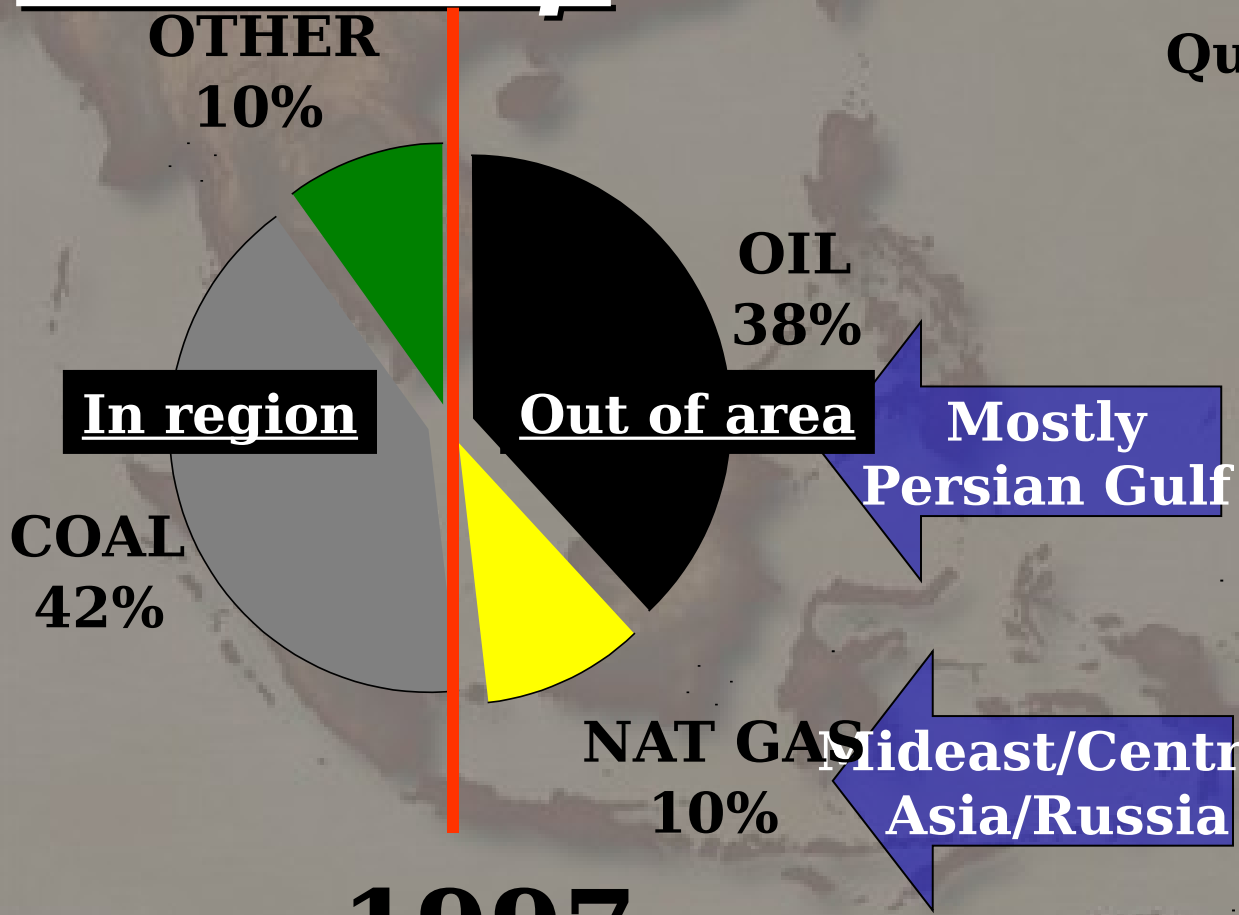
***Source: UNCTAD***

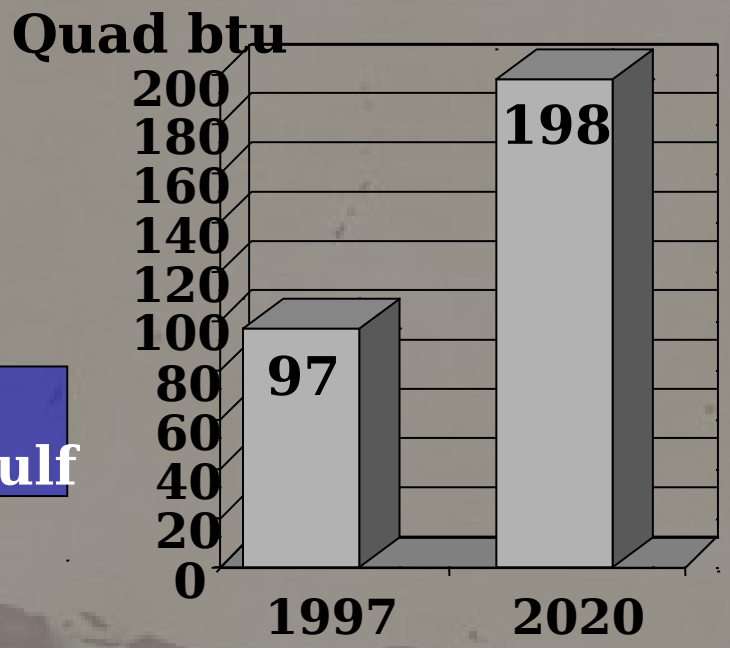
# Developing Asia's FDI (out) Stock

Source: UNCTA

# National Security Environment

## Asian Energy Futures Workshop




1997

1997 → 20

# China's Choice, The Planet's Future

Their Rule Set

One Rule Set

Parochialism

Globalization

*Least Resistance*
*Autonomy*
*Opacity*
*Control*
*Extensive Growth*

*Most Resistan*
*Interdepende*
*Transparency*
*Risk*
*Intensive Gro*

*Past/19th*

*Present/20th*

*Future/21s*

# Finding the Way : Decalogue

0 **Global energy market has the necessary resources**

1 **But no stability, no market**

2 **No growth, no stability**

3 **No resources, no growth**

4 **No infrastructure, no resources**

5 **No money, no infrastructure**

6 **No rules, no money**

7 **No security, no rules**

8 **No Leviathan, no security**

9 **No U.S. military, no Leviathan--*so national security-market connection must be understood***

# National Security System

ALLIES

FORCES FORWARD

STRATEGIC DEPLOY

STRATEG

OPERATIONS

SHAPE

POLICY

PREPARING

RESPONDING

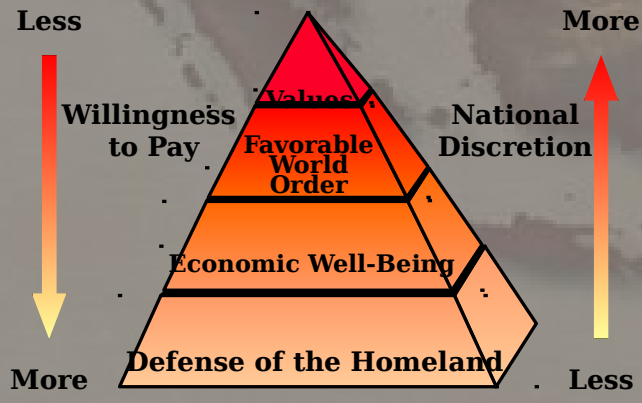
REASSURANCE

DETERENCE

COMPELLANCE

SELECTIVE ENGAGEMENT

COOPERATIVE ENGAGEMENT



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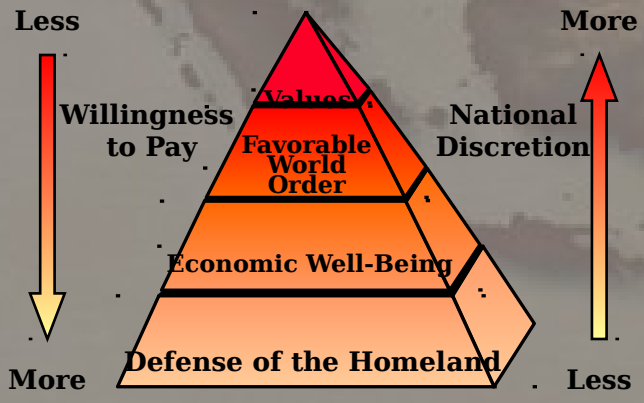

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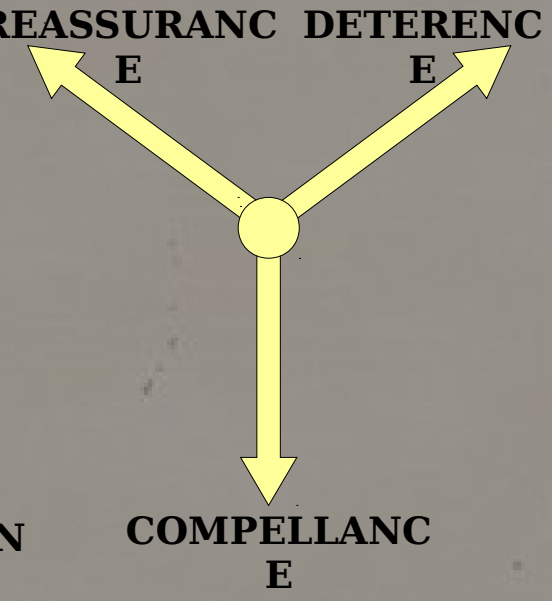


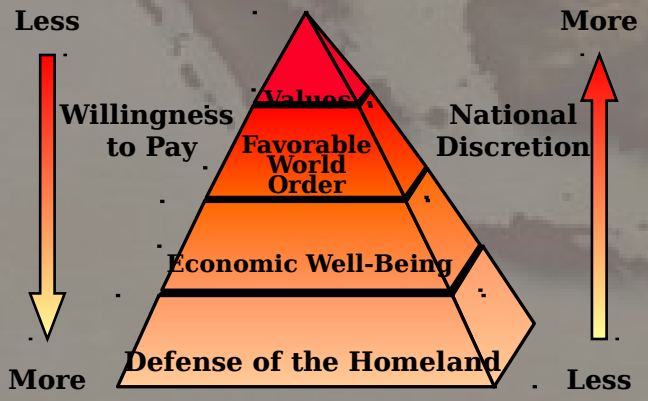


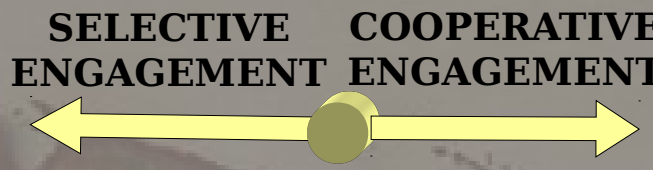

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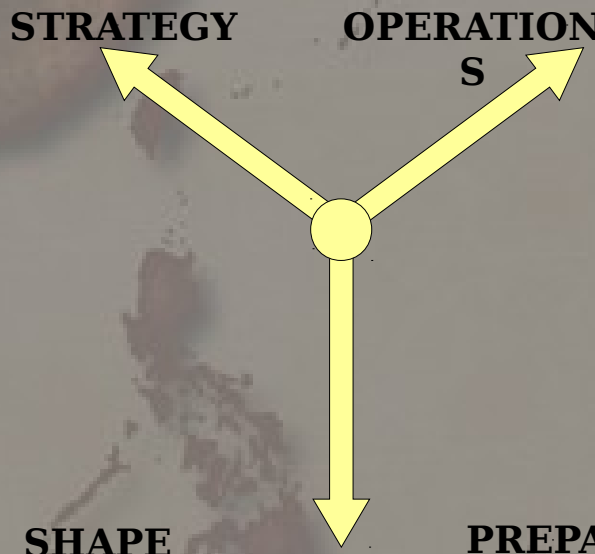


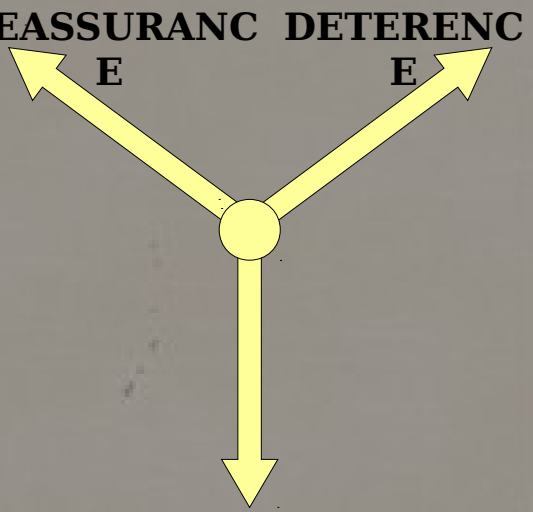


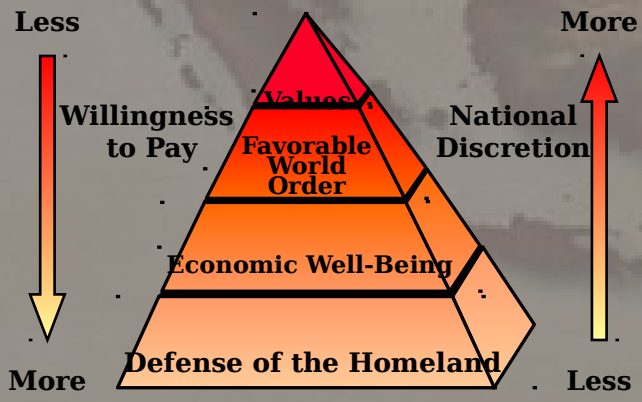

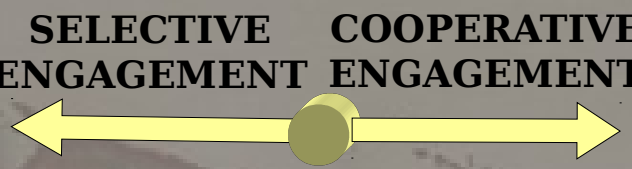

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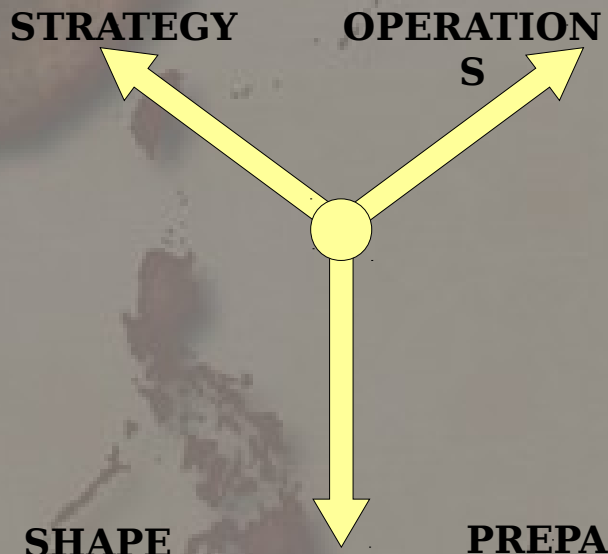


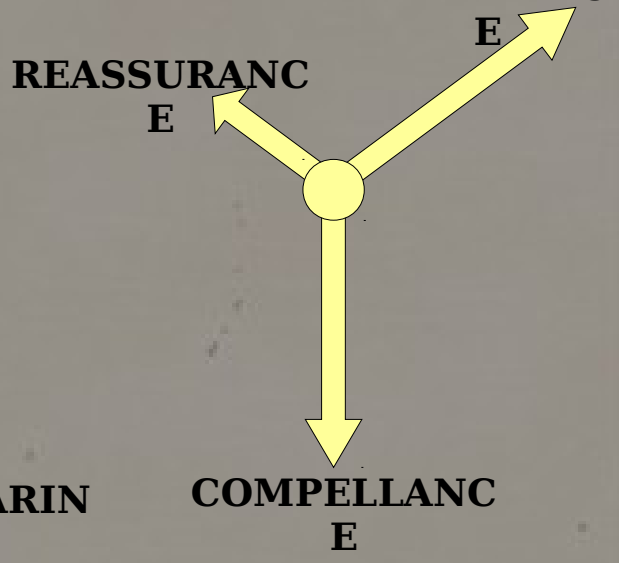


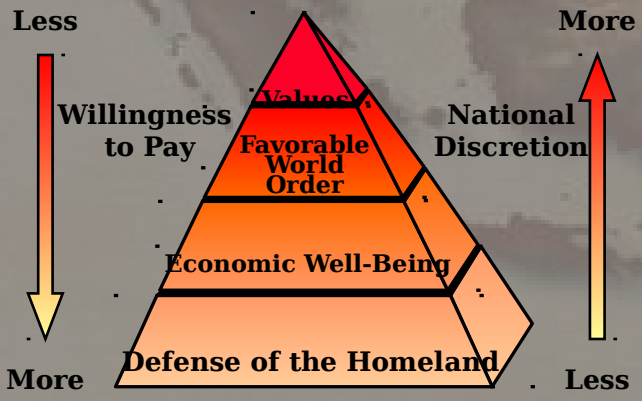

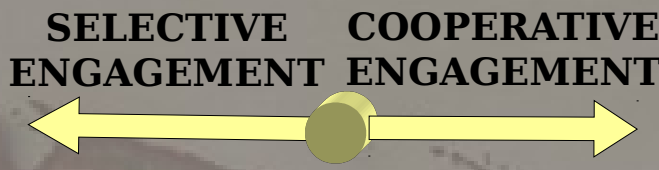

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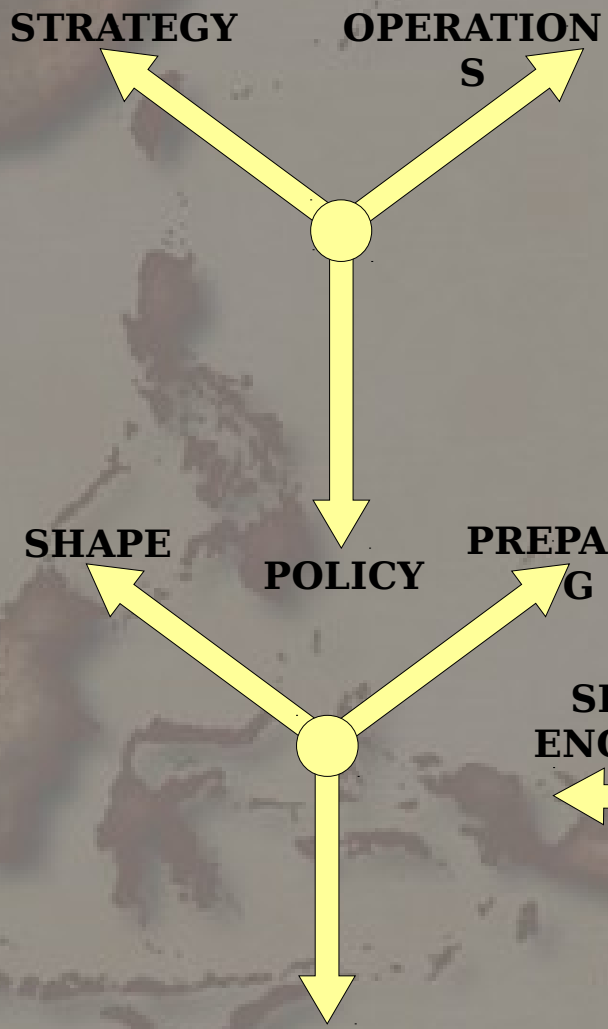


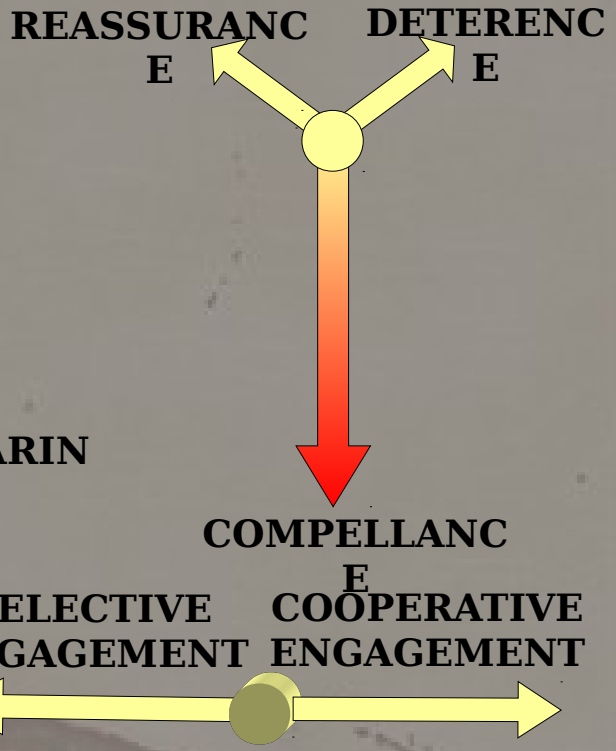


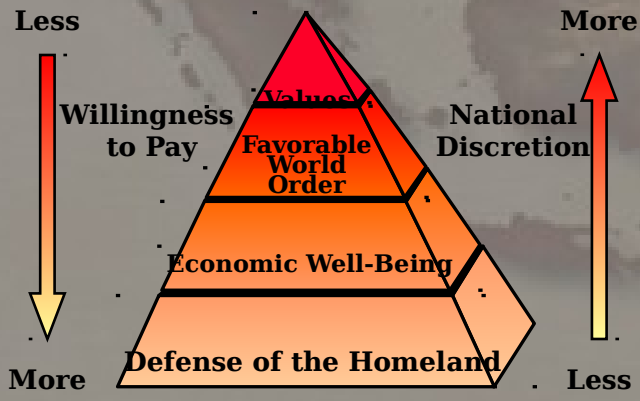

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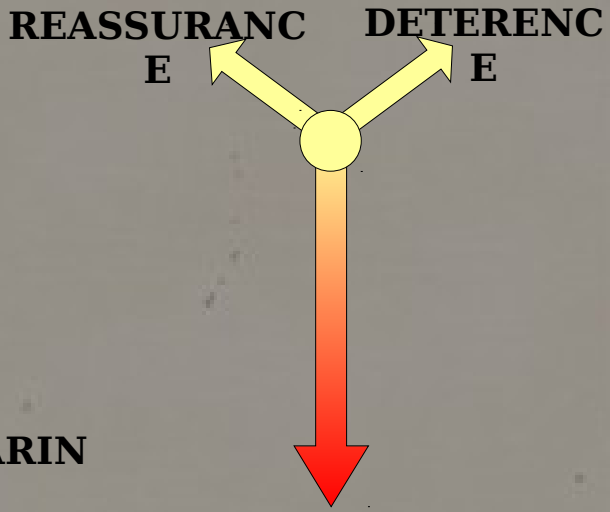


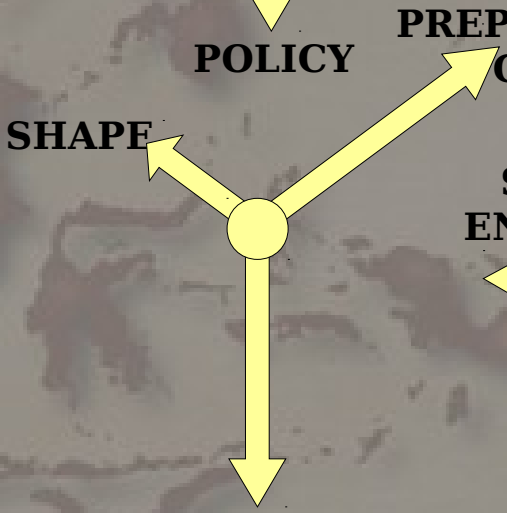


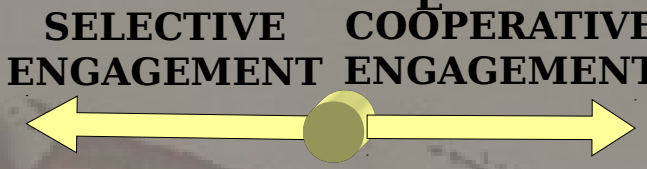


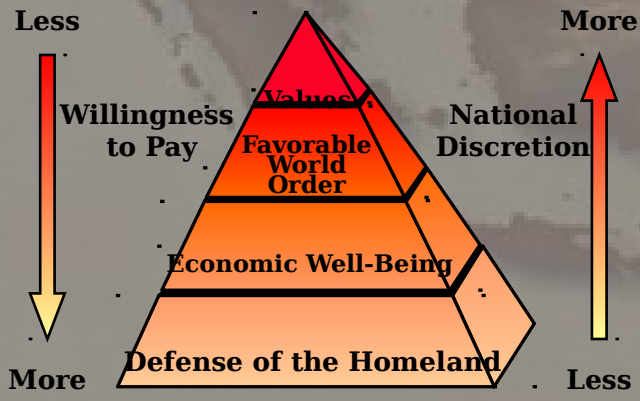

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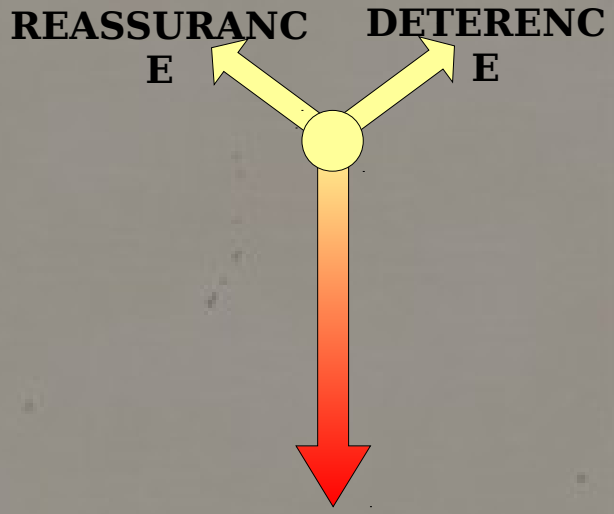


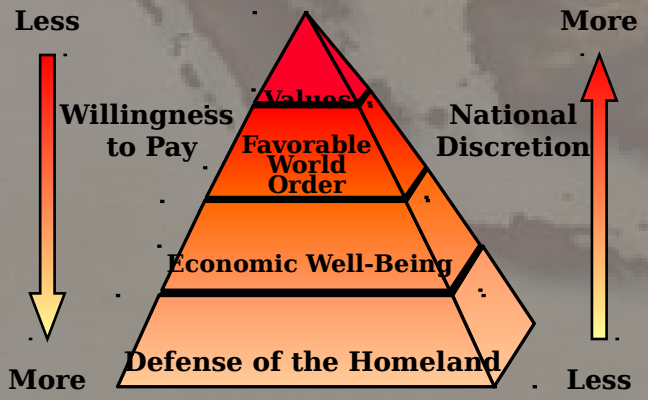

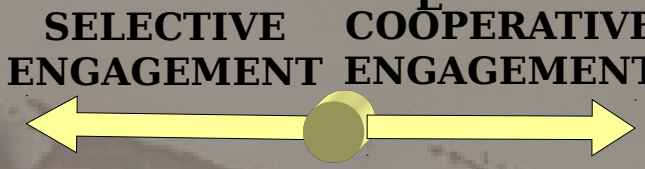

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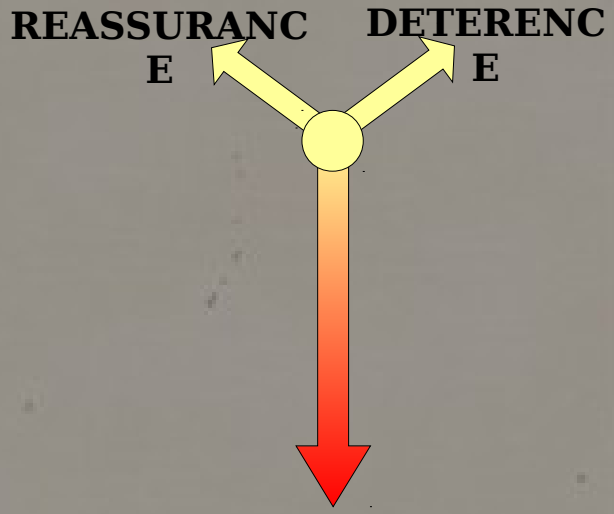
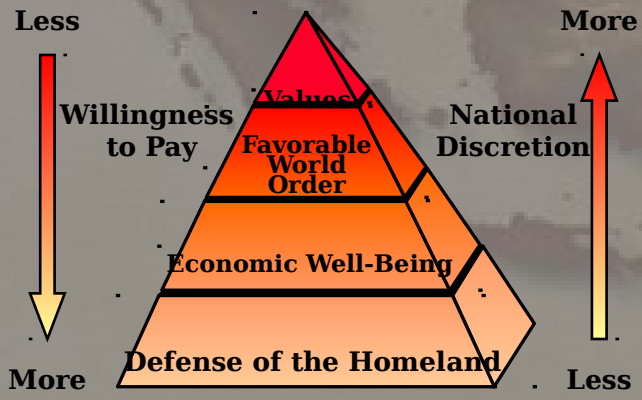
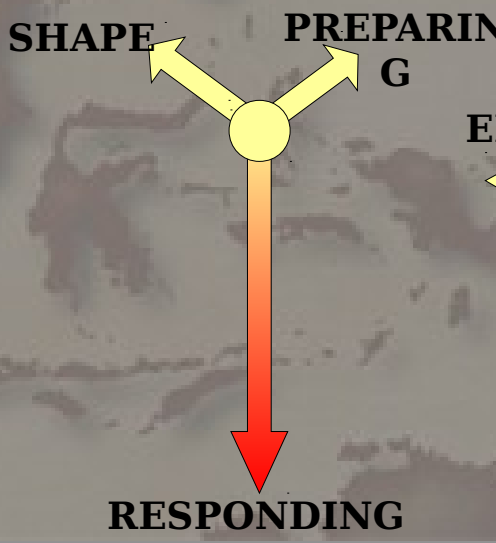
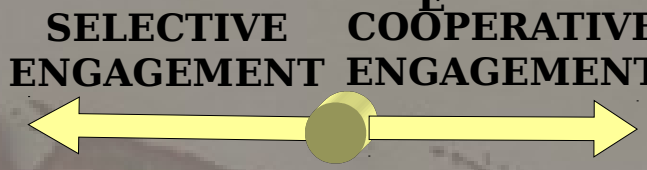
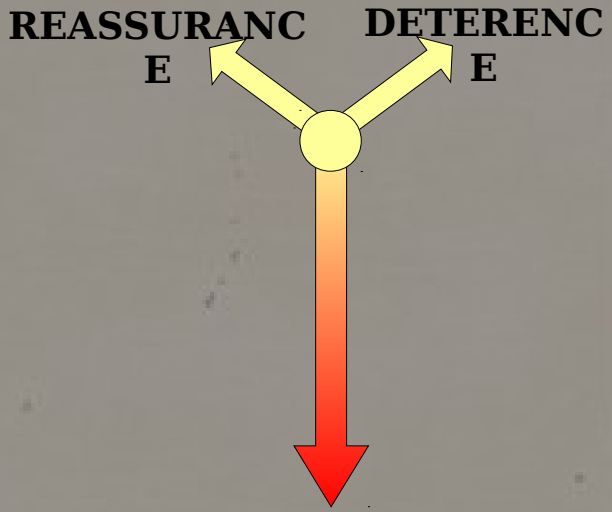


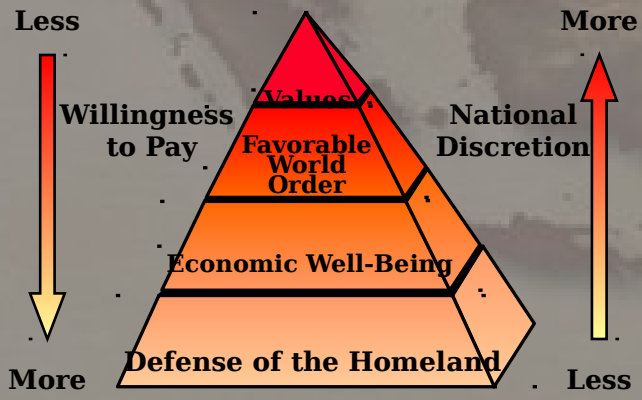



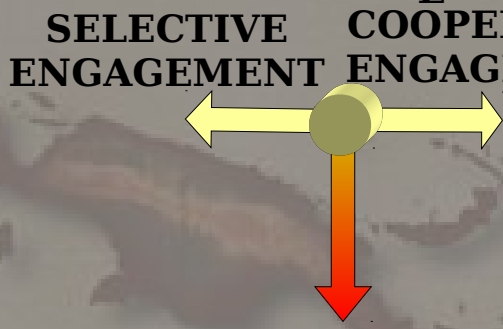



# National Security System





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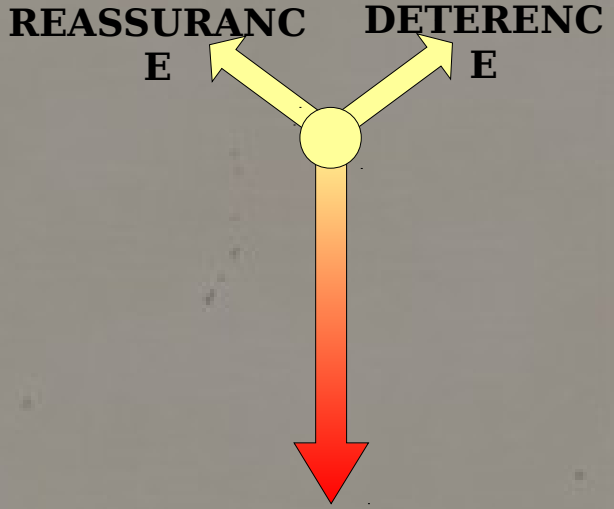


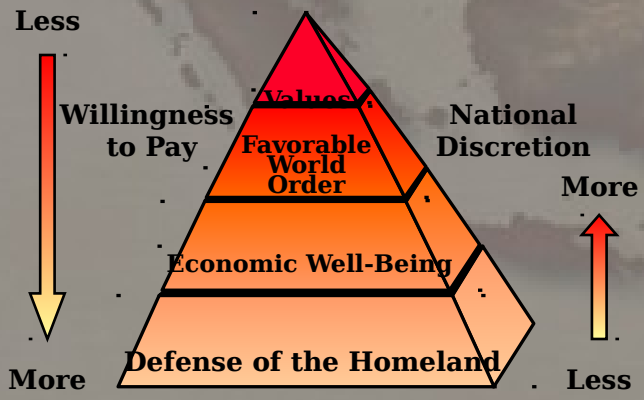


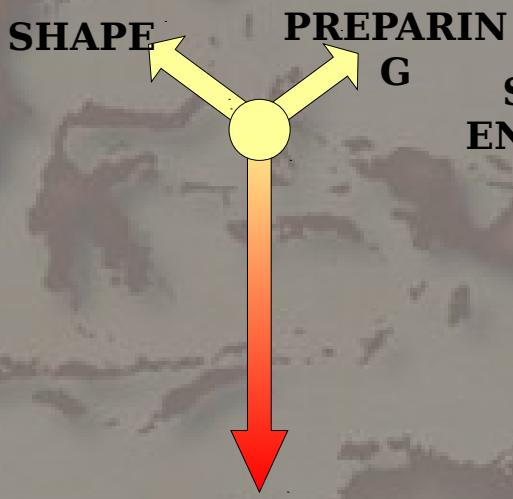


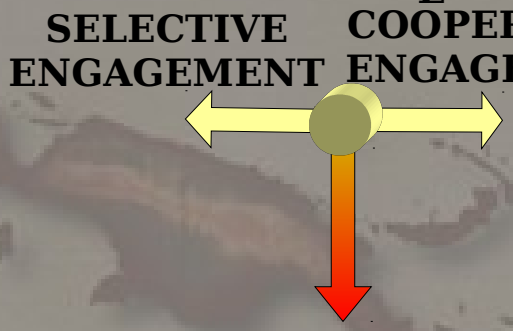

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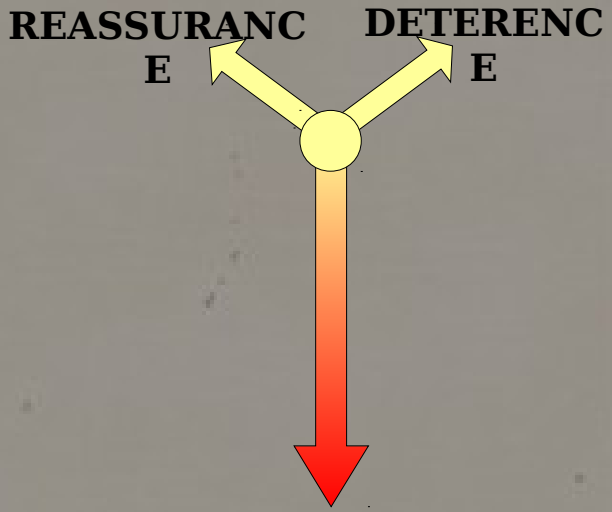
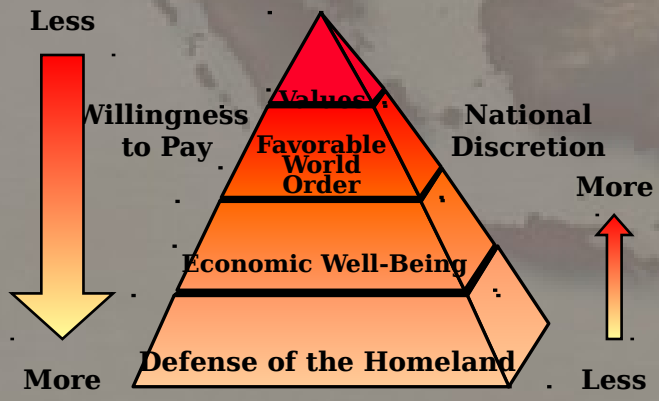
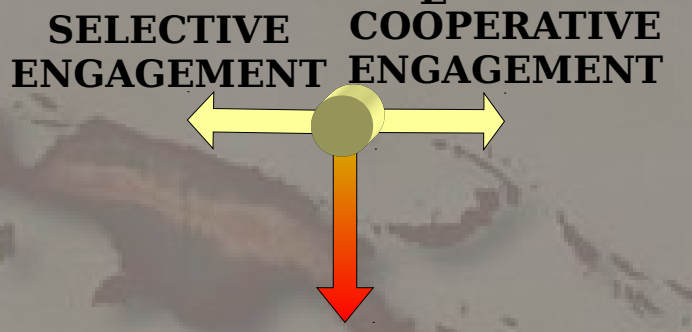




# Projecting Sovereignty

- **Demonstrates U.S. commitment to remain engaged**

- **Fosters political/military good will upon which coalitions, when required, can be built:**

  ***Familiarizes forces with geography/environment***
  ***Fosters maritime cooperation/interoperability***
  ***Reassures allies***
  ***Team builds during peacetime***
  ***Increases effectiveness during conflict***
  ***Key to exit strategy***
  ***Helps integrate civil/military planning***

- **Foreclose possibility of military success by aggressor**

  ***Forces present and deployable set timing and capability thresholds.***

***Dr. Ed Smith, Boeing***

# Sea Power Workshop

## ***Key Findings:***

**Continuous (as opposed to intermittent) presence in forward regions to be maintained *but increasingly difficult to do.***

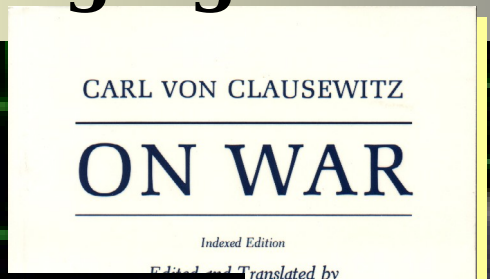
**US maintains Naval superiority for the foreseeable future *but guaranteeing that position requires that the US Navy transform itself and halt its slow but steady numerical decline.***

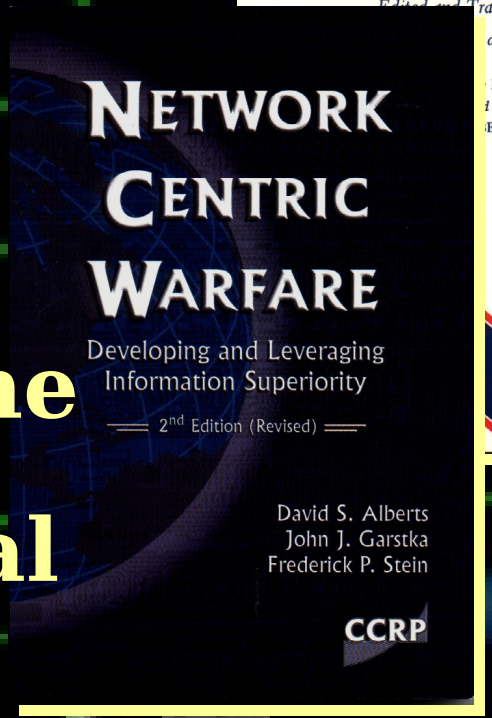
**The relative utility of Naval forces will increase at the conventional level *as long as the Navy transforms itself.* Otherwise,**

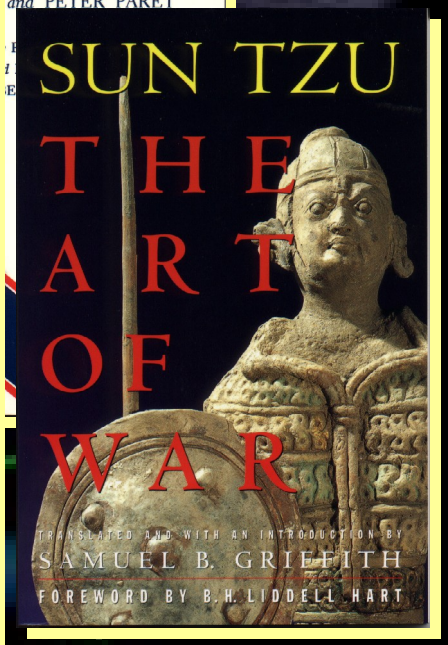
# Network-Centric Warfare

## …The Emerging Theory of War

- Sources of Power
- Relationships among power centers
- Linkage to outcome
- Linkage to political objectives



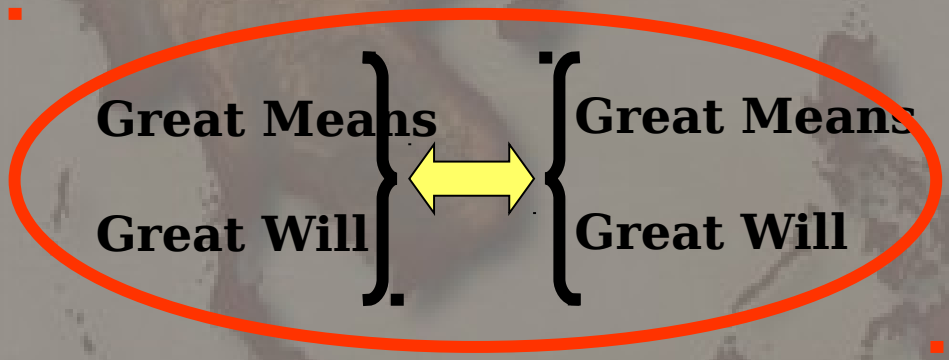




***…how does war work now?***

# Conflict

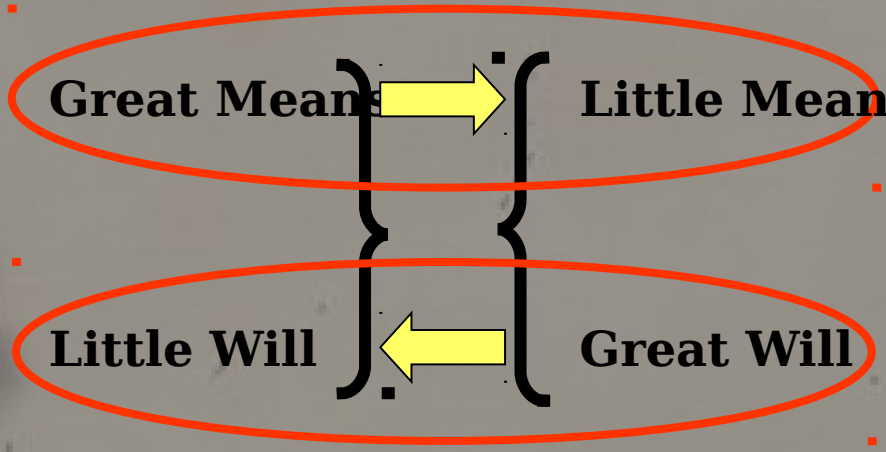
## Symmetric

**Peer Competitor**




## Asymmetric

**Large Power** **Challenger**




***trition-based Warfare*** ***Effects-based Warfa***

***Destroying the Physical Capacity for War*** ***Undermining Political basis for war***

***Dr. Ed Smith, Boeing***

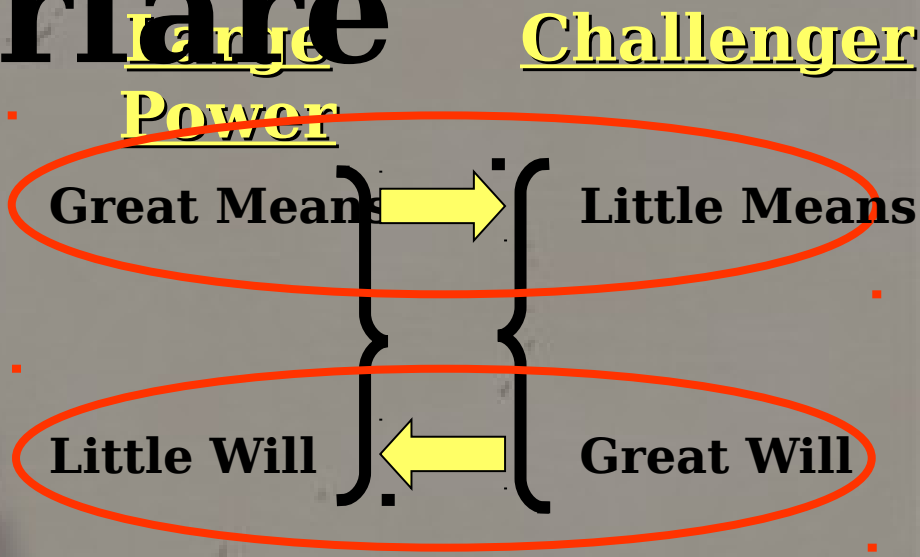
# "Informationalized" War

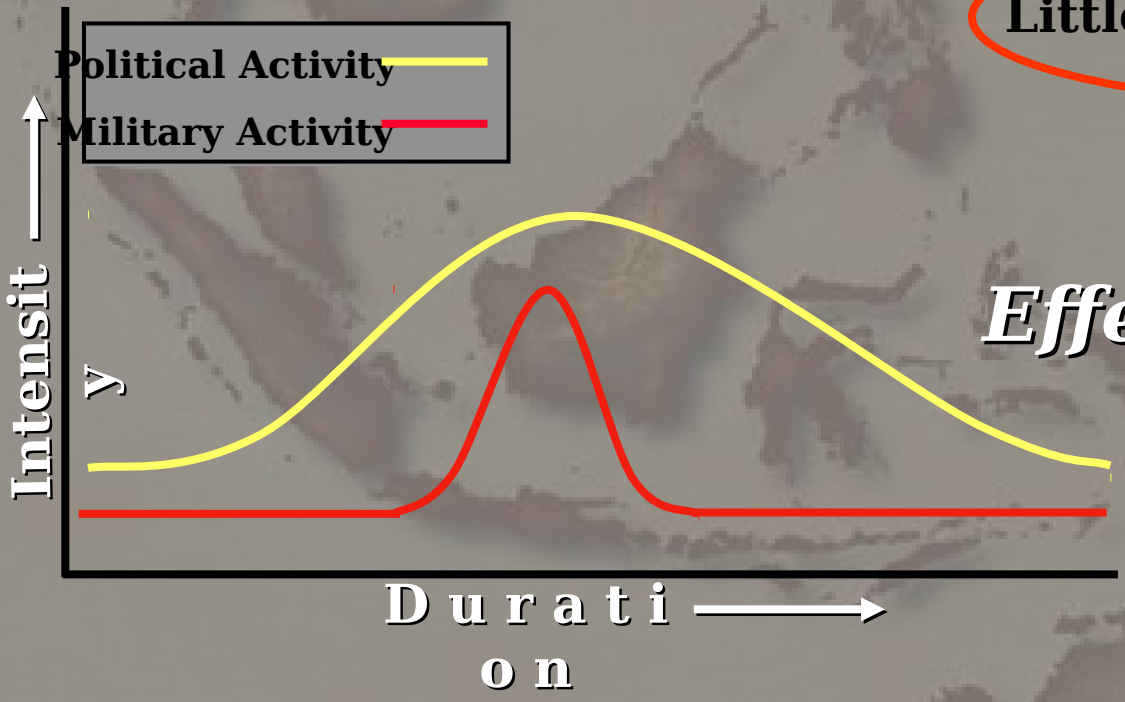
## Characterized by…

- More *complicated* causes
- More *limited* goals
- *Richer* in content
- *Shorter* duration
- *Decreased* damages
- *Increased integration* of opera
- Increased significance of *intan*

*Senior Colonel Wang Baucon, I*

# Effects - Based Warfare




***Effects-based Warfare***

***Dr. Ed Smith, Boeing***

# Effects - Based Warfare

## Targeting Means

### *Attrition-based*

Focus on "Targets"/ "swift decisive" wars

Military Objectives

Quantifiable Results

- Indirect attack on will
- War/Combat only
- Deterrence:

  Retaliation

  Pre-emption

## Targeting Will/ Behavior

### *Effects-based*

Focus on "Actions" prolonged, low intensity conflict

Political Objectives

Non-linear Results

- Direct attack on will
- Peace, Crisis, War
- Deterrence:

  Prevention

# Warfare: The Big Trends

| Age | Weapons | Energy |
| --- | --- | --- |
| Nomadic | Bare-Handed | Human |
| Agrarian | Cold | Mechanical |
| Industrial | Hot | Thermal |
| ***Information*** | ***Information*** | ***Information*** |

***Senior Colonel Wang Baucon, I***

# Warfare: The Big Trends

| | | |
|---|---|---|
| PEOPLE | → | NUMBERS |
| PLATFORMS | → | MOBILITY |
| MUNITIONS | → | SPEED/RANGE |
| ROBOTICS | → | PRECISION |

INCREASED DETACHMENT

INCREASING SPEED AND INFO CONTENT

***Number of participants increases…***
***As size of military decreases!***

# Challenges ...*Technical*

- **Counter precision**
  - ***Weapons, navigation, sensors***
- **Counter SEAD/DEAD**
- **Counter stealth**
- **Low cost cruise missiles**
- **High energy/density weapons**
- **Information operations**
- **Directed energy weapons**
- **Biologic weapons**

# Challenges

*Management …*

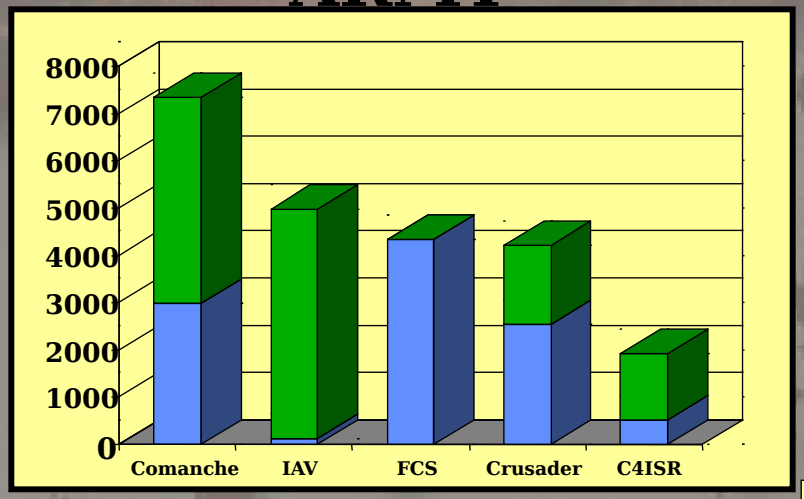
- **Selecting new metrics**
- **Teaming with the new defense industry**
- **Introducing the new without jeopardizing TOA**
- **Moving to continuous adaptive acquisition**

# Challenges ...*Operational*

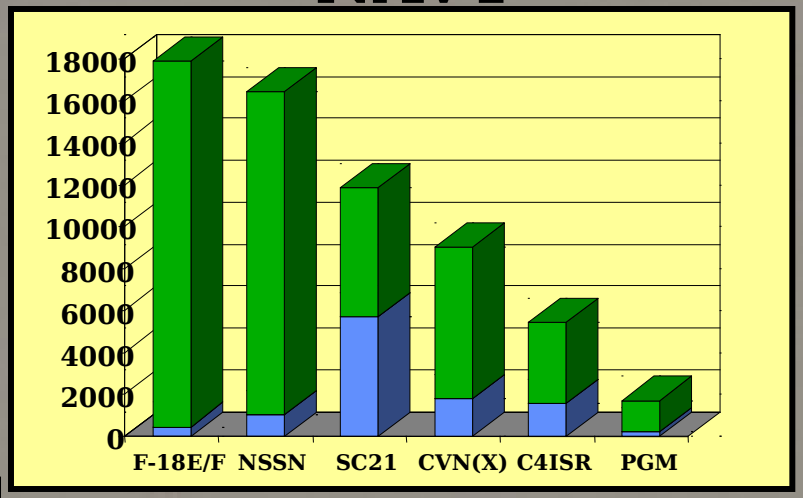
- **Achieving effects-based presence**
- **Winning information superiority**
  - ***Envelope management***
  - ***ISR vs. WMD***
  - ***Operational doctrine and organization***
- **Shorter military operations**

# Rhetoric – Resource Mismatch

## ARMY



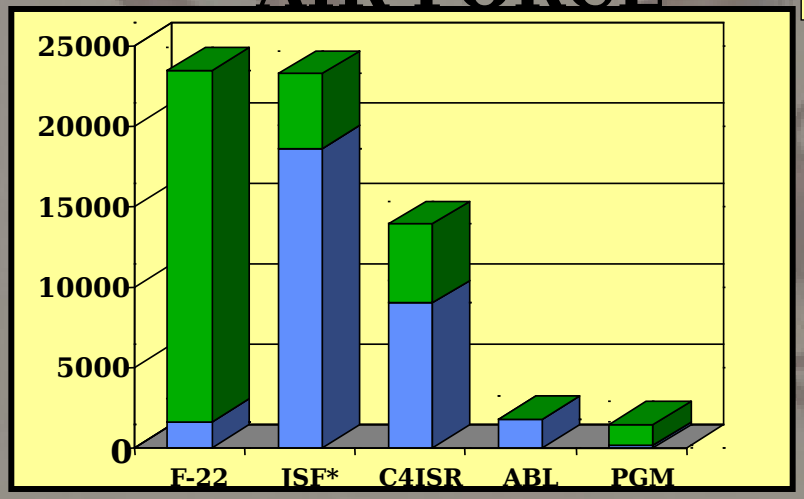

## NAVY




Procurement

RDT&E

## AIR FORCE




- **Platform investment !!**
- **Weapons investment??**
- **C4ISR investment???**

***Source: OSD Re***

# Continuous Navy Transition

| *Information age* | *To the…* |
| --- | --- |
| Integrated systems | → Networking components |
| Precision weapons | → Precision Effects |
| Weapons reach | → Sensor reach |
| Dispersed Offense | → Networked Force |
| High volume strike force | → Full service maneuver force |
| Securing the sanctuary | → Assuring Access |

# Summary Challenges

- Implementing NCW
- Achieving tactical stability
  - *Air*
  - *Sea*
  - *Space*
- Rebalancing for the info age
  - *Numbers*
  - *Increase I.T. fraction*
  - *Low end capabilities*
  - *Win information superiority*
- Refocus R&D
  - *Discovery and invention*
- Continuous adaptive acquisition

# “Challenge the Assumptions”

## That we. . .

***Cannot increase*** **forward presence**

***Cannot hold*** **or** ***increase size***

***Cannot shape*** **the fleet for information age**

# The Challenge

## We don't have to…

***Operate less***

***Be smaller***

***Forsake the information age***

# Rebalancing the Fleet